Model (1)

15 Marks

1 Choose the correct answer:

1. All of the following are processes that occur during the water cycle except ....

   a) precipitation b) runoff

   c) evaporation d) drought

2. The plant loses water from the stomata during .... process.

   a) evaporation b) transpiration

   c) photosynthesis d) precipitation

3. .... measures the atmospheric pressure.

   a) Thermometer b) Barometer

   c) Rain gauge d) Anemometer

2 Put (✓) or (✗) in front of each sentence:

1. Temperatures decrease in areas far from the equator. (   )
2. All the sunlight rays that fall on the Earth's surface are inclined. (   )
3. The density of cold water is greater than the density of hot water. (   )

3 Answer the following questions:

1. Mention the factors affect the movement of water in the water cycle.

   ....

2. Cross out the odd word.

   (Humidity - Volcano - Temperature - Atmospheric pressure) ....

Model (2)

15 Marks

1 Write the scientific term:

1. The amount of water vapor present in the air. (..............................)
2. The flowing of water along the Earth's surface into the river and then into the ocean or sea. (..............................)
3. The device that measures the amount of rain in a certain area. (..............................)

2 Complete the following sentences from the two brackets:

1. The force of .... pulls water droplets and sleets towards the ground. (friction - gravity)
2. At night, the sand on the seashore cools .... than the sea water. (faster - slower)
3. Rain and snow fall from clouds during the process of.............................. . (condensation - precipitation)

3 Answer the following questions:

1. Mention the factors that determine the wind direction.

....

....

2. Mention the importance of satellites.

....

Model (3)

15 Marks

1 Complete the following sentences:

1. When the sun rays are .... in an area far away from the equator, they are distributed on a larger area and we feel cold.

2. During evaporation process, water changes into a .... state by .... thermal energy.

3. Clouds are formed due to the .... process, then they fall down in the form of rain and snow.

2 Choose the correct answer:

1. .... is considered the main source of energy in the water cycle.

   a) Water　　b) Wind　　c) Sun　　d) Gravity

2. The sun rays are .... at the equator.

   a) perpendicular　　b) parallel　　c) semi-inclined　　d) very -inclined

3. The .... is used to measure wind speed.

   a) thermometer　　b) barometer　　c) anemometer　　d) rain gauge

3 Answer the following questions:

1. What happens if there is no wind on Earth?

   ....

2. The areas close to the equator are characterized by high temperature. Give reason.

   ....

Model (4)

15 Marks

1 Put (✓) or (✗) in front of each sentence:

1. The water cycle is affected by three main processes. ( )
2. The sand absorbs heat slower than water during daytime. ( )
3. Inclined sunrays affect a large area, and the temperature increases. ( )

2 Choose from column (B) what suits from column (A):

(A)	(B)
1. Water reservoirs	a. They are used to carry measuring instruments high into the atmosphere to measure weather conditions
2. Cold water molecules	b. They are storage locations of water on Earth
3. Weather balloons	c. have high density

3 Answer the following questions:

1. The amount of energy emitted from the sun affects the transpiration process. Give reason.

....

2. In the opposite figure, the force that is responsible for falling rain is called

....



Model (5)

15 Marks

1 Choose the correct answer:

1. .... currents cause air movement, winds, and changes in weather conditions.

   a) Heat conduction b) Thermal radiation c) Tides d) Convection

2. The sun rays are .... in areas that are very far from the equator.

   a) vertical b) curved c) slanted d) very slanted

3. When ocean water gains energy from sunlight, it.................... .

   a) condenses b) evaporates c) freezes d) melts

2 Write the scientific term:

1. The weight of the air above a certain area. (....................)

2. The process of the movement of water on the surface of the Earth into bodies of water.

   (....................)

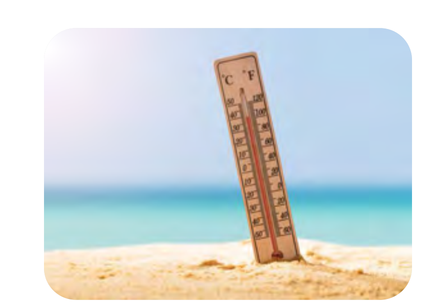
3. It is the science of studying and predicting the weather. 

3 Answer the following questions:

1. We need an oxygen cylinder when climbing mountains. Give reason.

   ....

2. Look at the following figure, then answer.



   a) This device is called ....

   b) It is used to measure ....

Model (1)

15 Marks

1 Choose the correct answer:

1. All of the following are processes that occur during the water cycle except ....

a) precipitation b) runoff

c) evaporation d) drought

2. The plant loses water from the stomata during .... process.

a) evaporation b) transpiration

c) photosynthesis d) precipitation

3. .... measures the atmospheric pressure.

a) Thermometer b) Barometer

c) Rain gauge d) Anemometer

2 Put (✓) or (✗) in front of each sentence:

1. Temperatures decrease in areas far from the equator. (✓)
2. All the sunlight rays that fall on the Earth's surface are inclined. (✗)
3. The density of cold water is greater than the density of hot water. (✓)

3 Answer the following questions:

1. Mention the factors affect the movement of water in the water cycle.

1- Thermal energy

2- Gravity force

2. Cross out the odd word.

(Humidity - Volcano - Temperature - Atmospheric pressure) ....(Volcano)..................................

Model (2)


15 Marks

1 Write the scientific term:

1. The amount of water vapor present in the air. (Humidity)
2. The flowing of water along the Earth's surface into the river and then into the ocean or sea. (Runoff)
3. The device that measures the amount of rain in a certain area. (Rain gauge)

2 Complete the following sentences from the two brackets:

1. The force of .... pulls water droplets and sleets towards the ground. (friction - gravity)
2. At night, the sand on the seashore cools .... than the sea water. (faster - slower)
3. Rain and snow fall from clouds during the process of.................... . (condensation - precipitation)

3 Answer the following questions:

1. Mention the factors that determine the wind direction.

   1- The amount of solar radiation that reach the Earth

   2- Rotation of the Earth

2. Mention the importance of satellites.

   - Carry measuring instruments high into the atmosphere to measure weather conditions.

Model (3)

15 Marks

1 Complete the following sentences:

1. When the sun rays are ....very inclined ....in an area far away from the equator, they are distributed on a larger area and we feel cold.

2. During evaporation process, water changes into a .... gaseous.............................. state by ....gaining.............................. thermal energy.

3. Clouds are formed due to the ....condensation .... process, then they fall down in the form of rain and snow.

2 Choose the correct answer:

1. .... is considered the main source of energy in the water cycle.

   a) Water b) Wind c) Sun d) Gravity

2. The sun rays are .... at the equator.

   a) perpendicular b) parallel c) semi-inclined d) very -inclined

3. The .... is used to measure wind speed.

   a) thermometer b) barometer c) anemometer d) rain gauge

3 Answer the following questions:

1. What happens if there is no wind on Earth?

   - The regions around the equator become extremely hot and the poles will completely freeze.

2. The areas close to the equator are characterized by high temperature. Give reason.

   - Because the sun rays are concentrated on a small area, giving a high effect of heat.

Model (4)

15 Marks

1 Put (✓) or (✗) in front of each sentence:

1. The water cycle is affected by three main processes. (✓)
2. The sand absorbs heat slower than water during daytime. (✗)
3. Inclined sunrays affect a large area, and the temperature increases. (✗)

2 Choose from column (B) what suits from column (A):

(A)	(B)
1. Water reservoirs	a. They are used to carry measuring instruments high into the atmosphere to measure weather conditions
2. Cold water molecules	b. They are storage locations of water on Earth
3. Weather balloons	c. have high density

1. b 2. c 3. a

3 Answer the following questions:

1. The amount of energy emitted from the sun affects the transpiration process. Give reason.

- As the amount of energy emitted from the sun increases, as the rate of transpiration process increases.

2. In the opposite figure, the force that is responsible for falling rain is called

.... gravity ....



Model (5)

15 Marks

1 Choose the correct answer:

1. .... currents cause air movement, winds, and changes in weather conditions.

   a) Heat conduction b) Thermal radiation c) Tides d) Convection

2. The sun rays are .... in areas that are very far from the equator.

   a) vertical b) curved c) slanted d) very slanted

3. When ocean water gains energy from sunlight, it.................... .

   a) condenses b) evaporates c) freezes d) melts

2 Write the scientific term:

1. The weight of the air above a certain area. (Atmospheric pressure)
2. The process of the movement of water on the surface of the Earth into bodies of water.

   (collection)
3. It is the science of studying and predicting the weather. (Meteorology)

3 Answer the following questions:

1. We need an oxygen cylinder when climbing mountains. Give reason.

   - Because the amount of oxygen gas decreases as we rise up.

2. Look at the following figure, then answer.



   a) This device is called ....(thermometer).................... .

   b) It is used to measure ....(temperature).................... .

Concept 1 Energy Transfer in the Water Cycle

1 Important Definitions Concept 1

Term	Definition
Water cycle	• It is the continuous movement of water among the various reservoirs. • It is the continual movement of water between the Earth's surface and the atmosphere.
Evaporation	It is the process by which liquid changes into gas.
Condensation	It is the process by which gas changes into liquid.
Precipitation	It is the process by which water droplets fall on the Earth's surface in the form of rain, sleet, hail, or snow.
Runoff	It is a step of the water cycle in which water flows across the Earth's surface in streams, then into rivers, lakes, or oceans.
Collection	It is a step of the water cycle in which rainwater is collected in a bigger body of water.
Melting	It is the process by which solid changes into liquid.
Freezing	It is the process by which liquid changes into solid.
Transpiration	It is the process by which water vapor is released into the air by the plant's leaves.
Reservoir	It is the storage location of water on Earth.
Convection	• It is a way that heat transfers through liquid and gas.
Convection current	It is the rising of warm, less dense fluid and the sinking of cold, denser fluid.

2 Importances Concept 1

Solar energy	• It provides the energy to melt ice and evaporate water on the Earth's surface. • It is the energy that drives the water cycle. • It provides energy to generate wind.
Gravity	• It is the basic force that drives the water cycle. • It pulls ice crystals and water droplets from clouds to fall back to the Earth's surface. • It pulls solid water (ice) to flow in glaciers from areas of higher elevation to areas of lower elevation. • It causes water to percolate down into the ground to the groundwater reservoirs. • It causes the rise and fall of the different densities, creating a circulation of convection currents.
Convection current	• It produces wind and ocean currents. • It helps in determining regional climates.
Wind	It has a role in transporting water to different locations on Earth during the water cycle.

3 Important Comparisons Concept 1

① Evaporation process and condensation process:

Evaporation Process	Condensation Process
It is the process of changing water into water vapor.	It is the process of changing water vapor into water droplets, forming clouds.
In the water cycle: The water in the bodies of water gains heat energy from the Sun and turns it into water vapor.	In the water cycle: Water vapor cools (releases energy) and turns into water droplets, forming clouds.

2 Melting process and freezing process:

Melting Process	Freezing Process
It is the process of changing a solid into a liquid by heating.	It is the process of changing a liquid into a solid by cooling.
Its particles absorb energy.	Its particles release energy.

3 Transpiration process and precipitation process:

Transpiration Process	Precipitation Process
It is the process by which water vapor is released into air by the plant's leaves.	It is the process by which water falls on the Earth's surface in the form of rain, sleet, hail, or snow.

4 Earth's climate zones:

Hottest Regions	Moderate Regions	Coolest Regions
They are regions close to the equator.	They are regions located between the hottest and coolest regions.	They are regions close to the North and South Poles of the Earth.
They have high temperatures.	They have moderate temperatures.	They have very low temperatures.
They have the highest evaporation rate.	They have a moderate evaporation rate.	They have the lowest evaporation rate.



4 Give Reasons for... Concept 1

1. Sunlight is important for the water cycle.
   - Because it provides the needed energy to melt ice into water or evaporate water into water vapor.
2. The water levels in puddles may rise or fall.
   - Due to the energy transfer during the water cycle.
3. Fog may be formed over a field in the early morning.
   - Due to the condensation of water vapor in the air.
4. Climate affects the evaporation rate.
   - Because as the climate gets hotter, more evaporation occurs, and vice versa.
5. Water flows in glaciers from a higher to a lower elevation area.
   - Due to the force of gravity.
6. Water flows downhill in streams to a bigger body of water.
   - Due to the force of gravity.
7. A puddle in a hot desert becomes smaller and smaller.
   - Due to the evaporation of the puddle's water by the Sun.
8. The dust particles in the air help in the precipitation process.
   - Because many water droplets in the air stick and accumulate on the dust particles, forming clouds.
9. Transpiration process has an important role in the water cycle.
   - Because about 10% of the water vapor in the air is released from the transpiration process occurring in plants' leaves.
10. Evaporation and condensation are two opposite processes.
    - Because evaporation is the change of liquid into gas by heating, while condensation is the change of gas into liquid by cooling.
11. The water droplets in clouds fall on the Earth's surface in the form of rain.
    - Because the water droplets become too heavy to be held by the clouds, so they are pulled down by gravity.
12. Convection currents have an important role in the condensation process in the atmosphere.
    - Because warm air rises up to be cooled, and it condenses, forming clouds.

13. The Sun is responsible for convection currents in the atmosphere and ocean
    - As the air and water on the Earth's surface are heated by the Sun, the become warmer and rise, while colder and denser air and water fall dow

14. Cold air sinks, while warm air rises up.
    - Because cold air is denser than warm air.

15. You feel very hot if you live near the equator.
    - Because the vertical sun rays are focused on a small area.

16. Polar regions have the lowest average of temperature on Earth.
    - Because sun rays fall with low angle where sun rays are distributed on very large area.

17. Solar radiation is responsible for the creation of wind.
    - Because the air warmed by the Sun rises, and it is replaced by cooler a from nearby.

5 What happens if: Concept 1

1. Water vapor rises in the air?
    - Water vapor cools and condenses, forming clouds.

2. You travel to a city near the equator?
    - The climate becomes cooler.

3. A small puddle is exposed to an extreme hot weather?
    - The puddle may dry up.

4. Gravity causes liquid water to percolate down into the ground?
    - Water is collected as a groundwater reservoir.

5. Warm, moist air touches a cold glass of water?
    - The moist air condenses forming water droplets.

6. The particles of water absorb heat energy?
    - The water evaporates and turns into water vapor.

7. You wrapped a plastic bag around a plant?
    - Water droplets are formed inside the plastic bag.

8. The Sun heats up the water in oceans, lakes, and rivers?
    - Liquid water will change into water vapor and rise to the atmosphere.

9. Water droplets become too heavy in the clouds?
    - Water droplets will fall to the Earth's surface in the form of rain.

⑩ Sun rays fall on the water in the oceans and rivers?
- The water in oceans and rivers evaporates and rises to be cooled and condensed.

⑪ Precipitation hits the Earth's surface?
- It may flow on the land as runoff.

⑫ Water droplets in clouds become too heavy?
- They precipitate in the form of rain, snow, or hail.

⑬ The air near the Earth's surface is heated?
- The air becomes warmer and lighter, so it rises up in the air.

⑭ You travel to a city away from the equator? (Concerning the weather)
- The temperature decreases.

⑮ You travel to a city near the equator? (Concerning the weather)
- The temperature and precipitation rate increase.

⑯ The amount of Sun's radiation reaching all parts of the Earth is equal?
- Wind will not be formed.

⑰ Warmed air carrying water vapor rises up in convection currents?
- It loses the water in the form of rain.

⑱ Cooled, dry air descends and reaches the Earth's surface?
- It forms a group of deserts around the planet.

6 Main Points Concept 1

- Flamingos migrate and breed to a salty lake in Turkey when the weather is warm.
- Flamingos feed on algae.
- The amount of solar radiation that reaches any area on the Earth's surface is unequal.
- The unequal heating of land and oceans causes different temperatures and densities in the ocean and atmosphere, causing ocean currents and wind.
- Even in a dry desert environment, the water cycle takes place.
- The water cycle has no starting point or ending point.

States of water:

- Water exists in nature in three states.
- In the water cycle, water changes from one state to another by absorbing or releasing energy.
- When a gas or a liquid is heated, it becomes less dense and it rises up.
- When a gas or a liquid is cooled, it becomes denser and it sinks.

Examples of water reservoirs:

- Oceans, seas, rivers, lakes, glaciers, groundwater, soil, rocks, atmosphere and living organisms.

Clouds are formed when:

- Condensed water droplets stick and collect on particles of dust, pollens and smoke in the air.
- Clouds are made up of billions of water droplets in the air.

Precipitation:

- When precipitation hits Earth in the form of rain, snow, or hail.
- It may flow across the land as runoff.
- Runoff is collected in streams, rivers, lakes, or oceans.

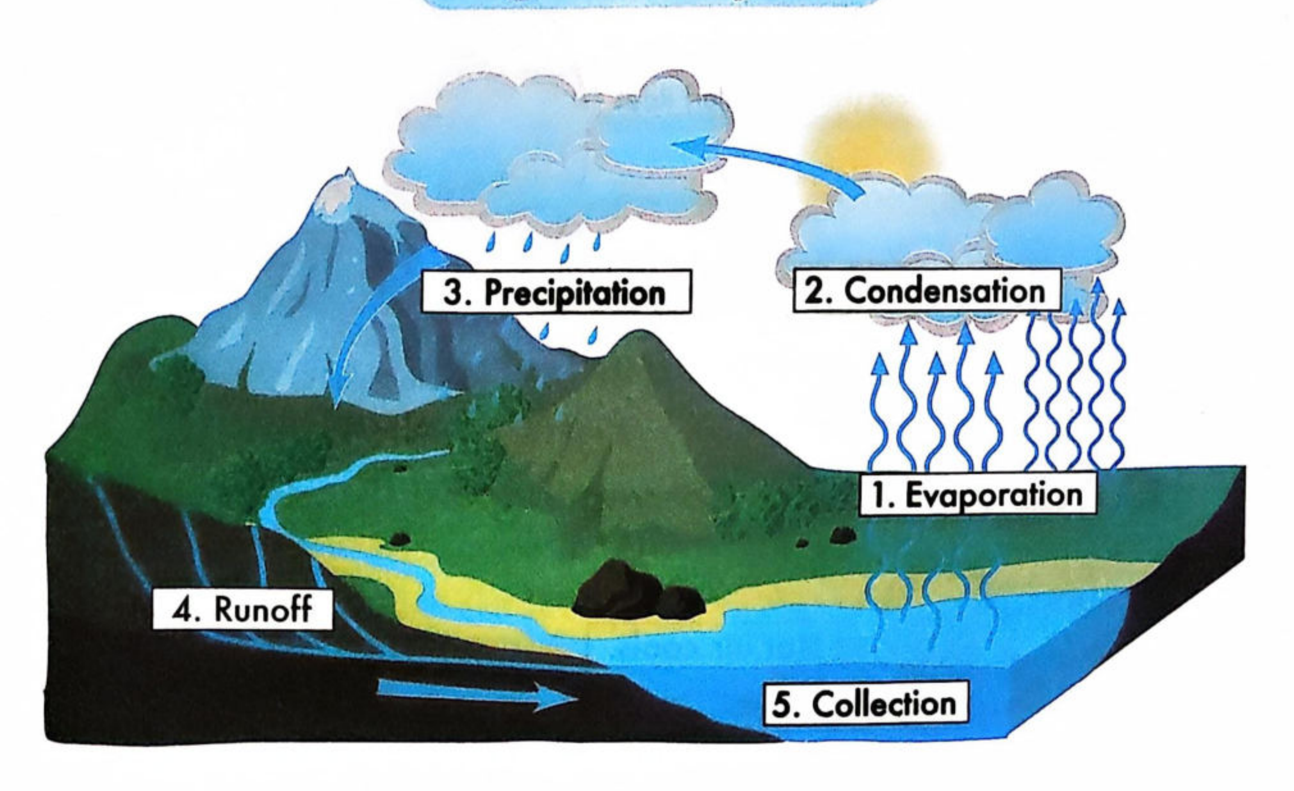
The wind direction is determined by two factors:

- The amount of solar radiation that the Earth receives at different latitudes
- The rotation of Earth

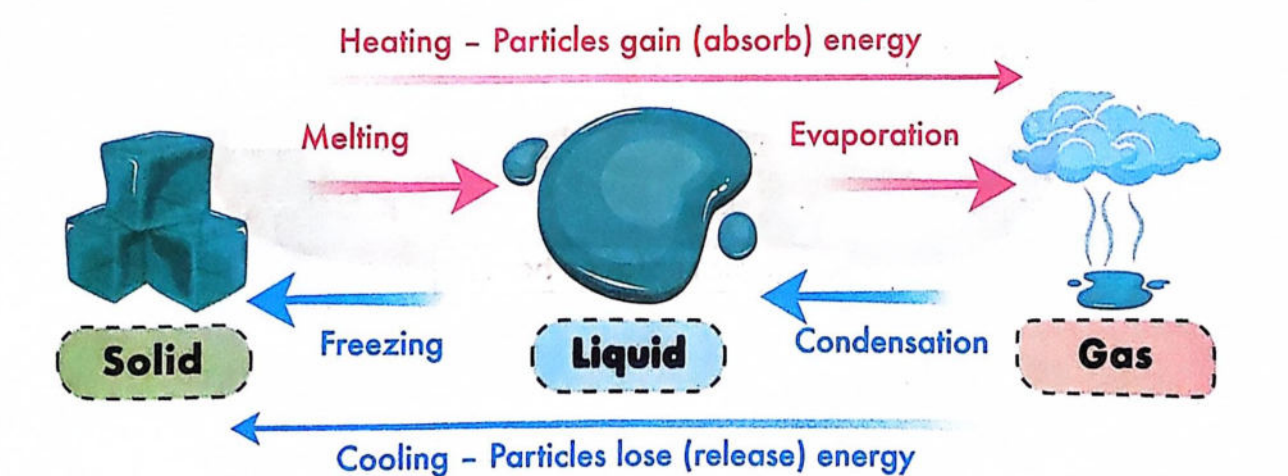
- Wind blows when warmed air by the Sun is replaced by cooler nearby air.
- Earth has a global wind system that consists of winds that blow in a constant direction over long periods of time.
- The Sun's heat reaches the Earth's atmosphere through space by radiation
- Heat energy is transferred throughout the Earth's atmosphere as convection
- Convection currents happen in the atmosphere, water, and Earth's mantle.
- About 10 % of the water vapor in the air comes from the transpiration process carried out by plants.

7 Important Diagrams Concept 1

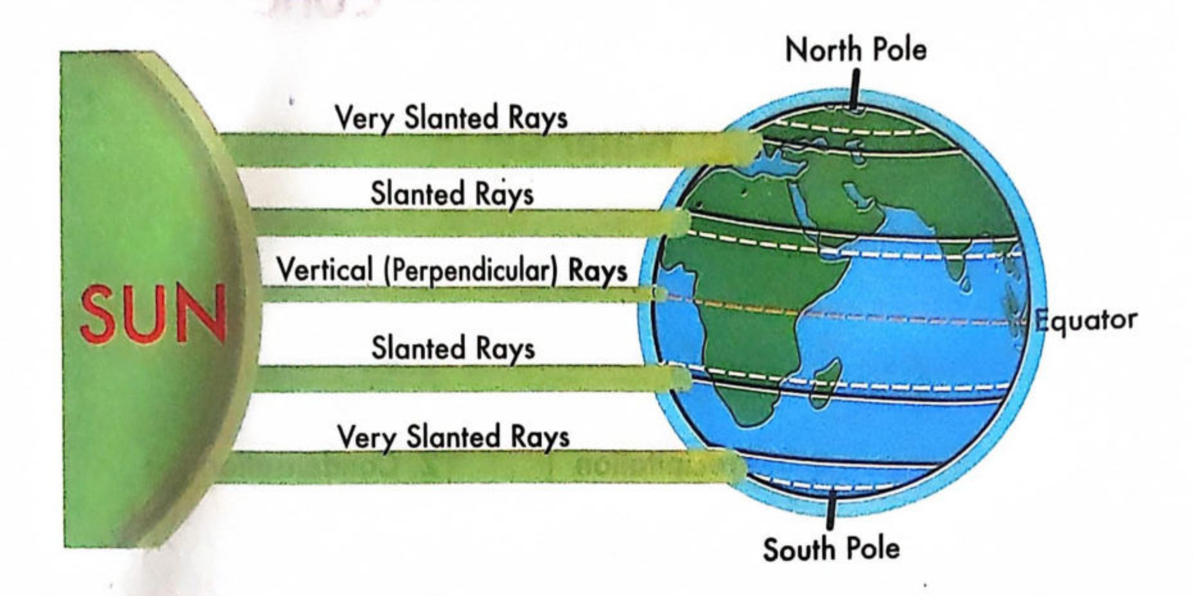
① Water Cycle



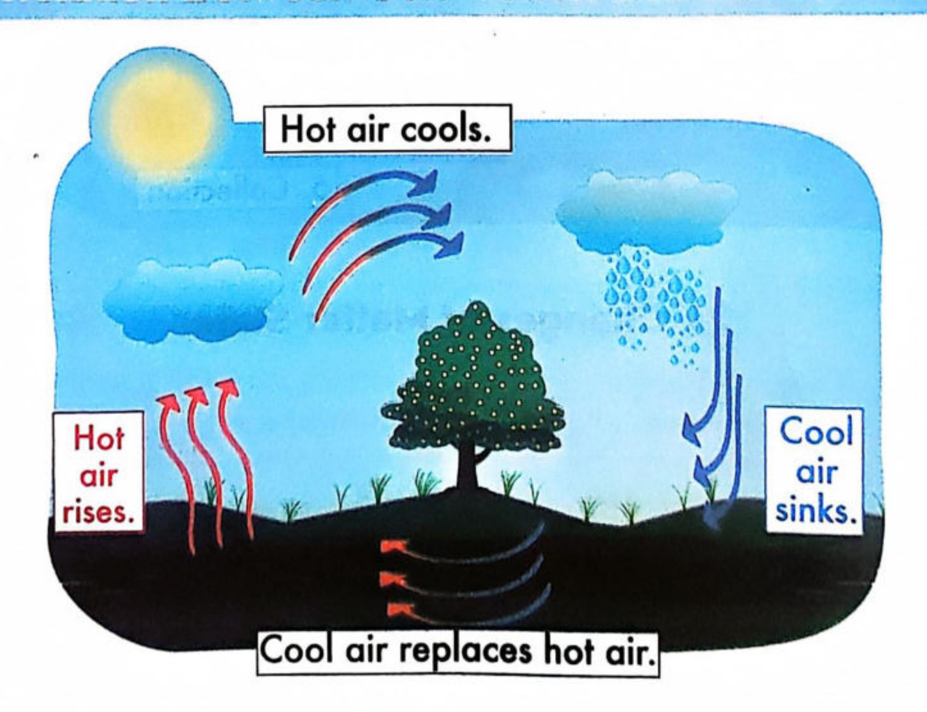
② Changes of Matter States



3 Distribution of Solar Radiation on Earth's Surface



4 Relation Between Convection and Condensation



8 Revision on Concept 1

1 Choose the correct answer:

1. Convection currents are responsible for all the following, except ....
   a. creation of wind
   b. ocean currents
   c. determining the climatic zones
   d. ocean tides
2. .... are considered forms of precipitation.
   a. Rain, snow, and hail
   b. Sun, rain, and snow
   c. Oceans, rivers, and seas
   d. Mountains, valleys and rivers
3. In thermal convection, heat transfers from ....
   a. high altitudes to low altitudes
   b. moist to dry regions
   c. cool to warm regions
   d. warm to cool regions
4. All the following processes are involved in the water cycle, except ....
   a. evaporation
   b. filtration
   c. precipitation
   d. condensation
5. The flowing of water along the Earth's surface to lakes and oceans is called ....
   a. rainfall
   b. runoff
   c. precipitation
   d. condensation
6. When there is more sun rays falling on a plant's leaf, its transpiration rate ....
   a. increases
   b. decreases
   c. doesn't change
   d. disappears
7. All the following occur during the condensation process, except ....
   a. formation of clouds
   b. absorbing energy
   c. releasing energy
   d. water vapor turning into liquid
8. The basic force that drives water in the water cycle is the force of ....
   a. gravity
   b. evaporation
   c. magnetism
   d. pressure
9. The .... is /are responsible for the movement of wind.
   a. water cycle
   b. ocean tides
   c. solar energy
   d. sound energy
10. Flamingos feed on .... in the lake's shallow water.
    a. algae
    b. sharks
    c. hawks
    d. ducks

11. Sun heat reaches the Earth's atmosphere by ....

a. radiation b. conduction c. convection d. condensation

12. Water moves from oceans to the atmosphere by the .... process and returns to the Earth's surface by the .... process.

a. condensation - evaporation b. evaporation - precipitation

c. precipitation - evaporation d. condensation - precipitation

13. When water vapor condenses, the liquid water forms ....

a. steam b. clouds c. runoff d. air

14. When water vapor rises in the atmosphere, it cools and ...., forming ....

a. evaporates - clouds b. condenses - clouds

c. melts - ice d. freezes - oxygen

15. What causes convection currents in the Earth's atmosphere?

a. The unequal heating on land and the aquatic bodies by the Sun

b. The equal heating on land and the aquatic bodies by the Sun

c. The runoff water on land

d. The transpiration process in plants

16. Wind's direction is affected by ....

a. the moon's revolution b. the Sun's rotation

c. Earth's revolution d. Earth's rotation

17. Water vapor must .... before it precipitates back down to Earth

a. evaporate b. condense c. melt d. freeze

18. .... is produced when heat from the Sun creates convection currents.

a. An earthquake b. A volcano c. Wind d. Humidity

19. The highest rate of evaporation occurs in the .... regions.

a. hottest b. Arctic c. coolest d. moderate

20. Convection currents occur in all the following, except in ....

a. Earth's mantle b. solids c. liquids d. gases

2 Put (✓) or (✗):

1. Transpiration produces about 10% of the water vapor in the atmosphere. (   )
2. Transpiration occurs in plant roots. (   )
3. Fog forms on fields in the early morning due to the condensation process. (   )
4. The water cycle has no start or end. (   )
5. Condensation and freezing processes need absorbing energy. (   )
6. The water level in a puddle increases due to the energy transferred to it.(   )
7. The water cycle doesn't occur in hot deserts. (   )
8. Wide leaves lose more water vapor than small leaves during the transpiration process. (   )
9. The water cycle occurs on land only. (   )
10. The transpiration rate increases at night. (   )
11. The human body is considered a water reservoir. (   )
12. When water vapor gains energy, it turns into water droplets. (   )
13. The water cycle is a continuous process that doesn't stop. (   )
14. Earth's rotation on its axis affects the wind direction. (   )
15. Moist air masses form a group of deserts around the world. (   )
16. The evaporation process occurs when the water molecules lose energy.(   )
17. Countries near the two poles have the coolest climate. (   )
18. There is no energy transfer occurring in the water cycle. (   )
19. The wind won't blow if all regions on the Earth's surface have the same temperature. (   )
20. Cool air is more dense than warm air. (   )
21. Convection currents cause the movement of ocean currents. (   )
22. The regions between the equator and the North Pole have a moderate climate. (   )

3 Write the scientific term:

1. They are formed when water vapor condenses and comes together in the air. (..............................)

2. It is the process by which water in the atmosphere falls back on the Earth's surface in the form of rain or snow. (..................)
3. It is a storage location of water on Earth. (..................)
4. It is the continuous movement of water among various reservoirs. (..................)
5. It is one of the Earth's layers that contains convection currents. (..................)

4 Choose from column (A) what suits it in column (B):

A

Column (A)	Column (B)
1. Gravity	a. helps determine the regional climates on Earth.
2. Earth's rotation	b. is the force that pulls the rain down.
3. Condensation	c. is a form of evaporation that takes place in plants.
4. Transpiration	d. is the opposite process of evaporation.

1. .... 2. .... 3. .... 4. ....

B

Column (A)	Column (B)
1. A shallow river drying up	a. is the source of solar radiation on the Earth's surface.
2. Glaciers	b. is an example of evaporation.
3. Clouds	c. are reservoirs that are made up of water in its solid state.
4. The Sun	d. are made up of billions of tiny water droplets.

1. .... 2. .... 3. .... 4. ....

5 Complete the following using the words between the brackets:

A (wind – migrate – force – ocean currents – warm – cooled)

1. Flamingos prefer to .... and breed when the weather becomes ....
2. Water starts to move when a .... is exerted on it
3. The convection currents occurring in water causes ...., while the convection currents occurring in air generates ....
4. When the water particles are ...., they become more dense.

B (convection currents – atmosphere – global wind system – Soil – directions – condenses)

1. .... and .... are considered water reservoirs.
2. The .... allow the falling and rising of air with different densities.
3. Earth has .... that consist of winds that blow in constant .... over long periods of time.

C (force – densities – less – convection currents – energy transfer – evaporation)

1. In the water cycle, ... causes the change of the water state, while the .... of wind and gravity moves water among water reservoirs.
2. Hot air is .... dense than cool air.
3. Shallow rivers dry up due to the .... process.
4. Inside an oven, ... occur due to the change of the air particles temperatures and ....

6 Correct the underlined words:

1. The amount of water changes during the water cycle. (....................)
2. When water condenses, it changes from a gas into a solid. (....................)
3. The radiant energy of the Sun causes ice to freeze and turn into a liquid. (....................)

4. When water molecules lose energy, they expand and become less dense. (..................)

5. When the water droplets in the clouds become light, water precipitates. (..................)

7 Give reasons for:

1. Sunlight has an important role in the water cycle.

....

....

2. The amount of transferred energy affects the rate of evaporation of a puddle's water.

....

....

3. Water flows in glaciers from a higher to a lower elevation area.

....

....

4. You feel very hot if you live near the equator.

....

....

5. There is too little rain in deserts around the world.

....

....

6. Solar radiation is responsible for the creation of wind.

....

....

8 What happens if:

1. There are no particles of dust, smoke, or pollens in the atmosphere?

....

....



2. You wrapped a plastic bag around a plant?

....

....

3. Precipitation hits the Earth's surface?

....

....

4. There is no wind on the Earth? (Concerning the ocean currents)

....

....

9 Complete the following diagram:

1. .... ← Freezing — Liquid — Gas

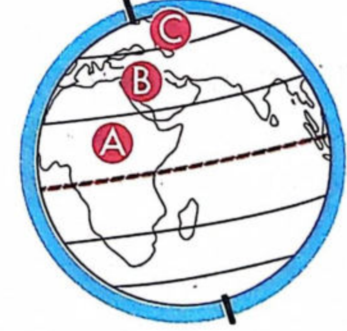
2. .... (from 1 to Liquid)

3. .... (from Liquid to Gas)

4. .... (from Gas to Liquid)

10 Study the following figure, then put (✓) or (✗):

1. Wind moves from region (A) to region (B). ( )
2. Region (A) has a cooler climate and less rainfall than region (B). ( )
3. Region (C) is very cool as it receives very slanted sun rays. ( )



Model Exams on Concept 3.1

Model Exam 1

Question 1

(A) Choose the correct answer:

1. Water on Earth exists in .... different states.
   a. two b. three c. four d. five
2. All the following processes require absorbing heat energy, except for the .... process.
   a. evaporation b. condensation c. melting d. transpiration
3. Convection currents are created because .... heats the Earth unevenly.
   a. the moon b. wind c. the ocean d. the Sun
4. The heat of the Sun reaches the Earth by ....
   a. convection b. radiation c. condensation d. conduction

(B) Write the scientific term:

It is the process by which water droplets in clouds return to the Earth's surface as sleet or hail.

Question 2

(A) Put (✓) or (✗):

1. The water cycle doesn't occur in the desert habitat. ( )
2. Deserts have too little rainfall, as they exist near the equator. ( )
3. Wind affects the climate of different regions around the world. ( )
4. A salt lake in Turkey has hosted colonies of flamingos in cold weather. ( )

(B) Cross out the odd word:

Run off – Photosynthesis – Evaporation – Collection (..................)

Question 3

(A) Choose from column (A) what suits it in column (B):

(A)	(B)
1 Gravity	a. affects the wind direction.
2 Earth's rotation	b. is the force that pulls the rain down.
3 Condensation	c. is a form of evaporation that takes place in plants.
4 Transpiration	d. is the opposite process of evaporation.

(B) What happens if:

You go away from the equator? (According to the temperature)

Model Exam 2

Question 1

(A) Choose the correct answer:

1. All the following are considered forms of precipitation, except ....
   a. sleet b. hail c. lakes d. snow
2. What is the correct sequence of processes that the water undergoes in the water cycle?
   a. Evaporation, precipitation, condensation
   b. Evaporation, condensation, precipitation
   c. Evaporation, precipitation, condensation
   d. Condensation, evaporation, precipitation
3. The presence of all the following in the air help in the formation of clouds, except ....
   a. pollens b. smoke particles c. dust particle d. rocks
4. Heat transfers by convection currents in ....
   a. fluids b. metals c. solids d. space

(B) Give a reason for: Solar radiation is responsible for the creation of wind.

Question 2

(A) Put (✓) or (✗):

1. The water cycle has a start point and also an end point. (   )
2. About 10% of the water in the air is produced from the transpiration process. (   )
3. Cold water is denser than hot water. (   )
4. Wind affects the climate of different regions around the world. (   )

(B) What happens to:

The water level in a puddle when the precipitation on it increases?

Question 3

(A) Complete the sentences using the words between the brackets:

(temperatures – living organisms – Soil – condenses)

1. .... and .... are considered water reservoirs.
2. Gases with different .... have different densities.
3. Water falls to the Earth as rain after water vapor .... into the clouds.

(B) Write the scientific term:

It is a storage location for water on Earth. (........)

February Exams

Model Exam 1

1 Choose the correct answer:

1. A puddle may dry up due to the .... process.
   a. condensation b. precipitation
   c. evaporation d. melting
2. .... is a form of evaporation that takes place in the plant's leaves.
   a. Photosynthesis b. Precipitation
   c. Transpiration d. Respiration
3. The dry air in the wind's cycle forms a group of .... around the Earth.
   a. streams b. puddles
   c. forests d. deserts
4. The .... process follows the evaporation process in the water cycle.
   a. precipitation b. transpiration c. condensation d. melting

2 Put (✓) or (✗):

1. The amount of solar radiation that reaches different areas on Earth is equal. ( )
2. The water cycle doesn't occur in a dry desert environment. ( )
3. The heat of the Sun transfers through space by convection. ( )
4. When precipitation hits Earth, it may flow across the land as runoff. ( )

3 Answer the following questions:

(A) Write the scientific term:

It is the continuous movement of water among different water reservoirs. (....................)

(B) Give a reason for:

The Sun is the main source of energy that drives the water cycle.

....

Model Exam 2

1 Choose the correct answer:

1. All the following processes are involved in the water cycle, except ....
   a. condensation b. precipitation
   c. transpiration d. photosynthesis
2. Heat transfers by convection currents in ....
   a. space b. metals
   c. fluids d. solids
3. .... and .... processes release energy.
   a. Evaporation - condensation b. Melting - transpiration
   c. Freezing - condensation d. Transpiration - evaporation
4. .... return(s) water to the air in the form of water vapor.
   a. Transpiration b. Evaporation c. Condensation d. a and b

2 Put (✓) or (✗):

1. The regions near the equator have the lowest evaporation rate. (   )
2. The water level in the lake is not affected by any change in temperature. (   )
3. The Sun is the most important source of energy that drives the water cycle. (   )
4. Gravity returns the ice crystals in the clouds to the Earth in the condensation process. (   )

3 Answer the following questions:

(A) Write the scientific term:

It is the storage location of water on Earth. (....................)

(B) Give a reason for:

The water levels in puddles may rise.

....

Model Exam 3

1 Choose the correct answer:

1. Which of the following is NOT a result of condensation?

   a. Clouds b. Water vapor
   c. Fog d. a and c

2. .... is the main source of energy that drives the water cycle.

   a. The moon b. Gravity
   c. The Sun d. Earth

3. Heat is transferred from the Sun through space by ....

   a. conduction b. convection
   c. radiation d. b and c

4. Water .... into water vapor and rises up in the air.

   a. evaporates b. condenses c. melts d. freezes

2 Put (✓) or (✗):

1. The climate is not affected by your location on Earth. ( )
2. Warm air is always replaced by cold air. ( )
3. The water cycle has no starting or ending point. ( )
4. If Earth stopped rotating, the wind direction would not be affected. ( )

3 Answer the following questions:

(A) Write the scientific term:

It is the process by which water droplets in clouds fall on the Earth's surface. (....................)

(B) What happens to:

The water vapor if it is cooled in the atmosphere?

....

Model Exam 4

1 Choose the correct answer:

1. The snow falling in a polar region represents the .... process.
   a. condensation b. precipitation
   c. evaporation d. melting
2. .... processes are the reason that water vapor exists in the air.
   a. Transpiration and condensation b. Evaporation and precipitation
   c. Precipitation and condensation d. Evaporation and transpiration
3. The water in a river traveling down a mountainside and into the sea represents ....
   a. transpiration b. precipitation
   c. runoff d. evaporation
4. In the .... regions, the rate of evaporation would be the highest.
   a. moderate b. coolest c. hottest d. polar

2 Correct the underlined words:

1. Flamingos feed on the algae in the lake's deep waters. (....................)
2. Transpiration is a form of condensation. (....................)
3. The Sun is the basic force that drives the water cycle. (....................)
4. Wind may contain water droplets or ice crystals. (....................)

3 Answer the following questions:

(A) Write the scientific term:

It is the transfer of heat through liquids and gases. (....................)

(B) What happens if:

Precipitation hits the Earth's surface?

....

Model Exam 5

1 Choose the correct answer:

1. .... is the main reason why the evaporation process occurs in the water cycle.
   a. The Sun b. Gravity c. The moon d. Rain
2. The presence of all the following in the air helps in the formation of clouds, except for ....
   a. pollens b. smoke particles
   c. dust particles d. rocks
3. When the air particles gain energy, they become .... dense and ....
   a. more - sink b. less - sink c. more - rise d. less - rise
4. As you go away from the equator, ...
   a. sunlight is distributed over a smaller area
   b. precipitation increases
   c. sunlight is distributed over a greater area
   d. the temperature increases

2 Put (✓) or (✗):

1. Steam is an example of precipitation. ( )
2. When glaciers lose energy, they change into a liquid state. ( )
3. When a gas is heated, it expands and becomes denser. ( )
4. Deserts are formed when dry, cold air descends back to the Earth's surface. ( )

3 Answer the following questions:

(A) Write the scientific term:

It is the step in which water flows along the Earth's surface into streams or rivers. (....................)

(B) What happens if:

The water droplets in the clouds become too heavy?

....

Answers

Model Exam 1

1 1 c 2 c 3 d 4 c

2 1 ✗ 2 ✗ 3 ✗ 4 ✓

3 (A) Water cycle

(B) Because the Sun provides the energy needed to evaporate water into water vapor and melt ice into water.

Model Exam 2

1 1 d 2 c 3 c 4 d

2 1 ✗ 2 ✗ 3 ✓ 4 ✗

3 (A) Reservoir

(B) Due to the precipitation process.

Model Exam 3

1 1 b 2 c 3 c 4 a

2 1 ✗ 2 ✓ 3 ✓ 4 ✗

3 (A) Precipitation

(B) The water vapor condenses into water droplets.

Model Exam 4

1 1 b 2 d 3 c 4 c

2 1 shallow 2 evaporation 3 Gravity 4 Clouds

3 (A) Convection

(B) Water flows on the Earth's surface as runoff.

Model Exam 5

1 1 a 2 d 3 d 4 c

2 1 ✗ 2 ✗ 3 ✗ 4 ✓

3 (A) Runoff

(B) The water droplets fall on the Earth's surface during precipitation.

Self-Assessments
on Concept (3.1)

Self-Assessment 1 On Lesson 1

1 (A) Complete the following sentences using the words below :

(evaporation – energy – solar)

1. Water changes from solid state to liquid state when it gains ....
2. The increase in the rate of .... causes the completely drought of the large salt lake in Turkey.
3. Evaporation of different water bodies on Earth is affected by the distribution of the .... energy on the Earth's surface.

(B) Give a reason for the following :

Drying up of a shallow lake in summer season.

....

2 (A) Put (✓) or (✗) :

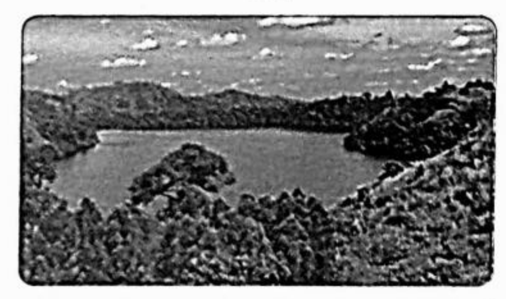
1. Sunlight causes the change of water to snow in coolest regions. ( )
2. The large salt lake in Turkey dries up when the weather is cold. ( )
3. In hottest regions, the rate of evaporation process is the greatest. ( )

(B) What happens to ... ?

The migration of flamingos if the large salt lake in Turkey becomes completely drought.

....

3 Look at the following pictures, then put (✓) or (✗) :



A lake filled with water
Picture (A)



A lake affected by drought
Picture (B)

1. Drying up of water of the lake in picture (B) is due to the increase in the rate of condensation process. ( )
2. The level of water of the lake in picture (A) will increase if the rate of precipitation increases in this area. ( )
3. The lake in picture (B) will become like the lake in picture (A) if the rate of evaporation increase in the lake of picture (B). ( )

Self-Assessment 2 till Lesson 2

1 (A) Choose the correct answer :

1. Both of .... and .... processes occur by increasing the absorption of thermal energy.
   a. evaporation – transpiration b. evaporation – freezing
   c. condensation – transpiration d. condensation – freezing
2. Water changes from a state to another when it gains ...., while water starts to move when a .... is exerted on it.
   a. work – force b. force – energy
   c. work – energy d. energy – force
3. The next process after condensation of water vapor in the sky as clouds is .... process.
   a. evaporation b. precipitation c. collection d. freezing

(B) Give a reason for the following :

In a sunny day, a part of ice found on the top of a mountain will change into liquid water.

....

2 (A) Write the scientific term of each of the following :

1. A step after precipitation in which water of rain flows across the land into the river. (..................)
2. A structure found on plant leaves responsible for losing water vapor during transpiration process. (..................)
3. It is the movement of water among the various water reservoirs on the Earth. (..................)

(B) What happens if ... ?

Water in a lake is exposed to solar radiation for a long period of time.

....

3 Look at the opposite figure, then answer the questions below :

1. This figure represents .... process that takes place through .... which is found on the plant leaves. **(Complete)**

2. Choose the correct answer :

1. The process which takes place in this figure is considered as a form of .... process.
   a. condensation b. evaporation c. precipitation d. collection
2. The process which takes place in this figure can produce about .... of water vapor that is found in the air.
   a. 5% b. 7% c. 10% d. 15%

Self-Assessment 3 till Lesson 3

1 (A) Complete the following sentences using the words below :

(loses – gains – deserts)

1. Water of oceans and seas .... thermal energy when it changes into water vapor.
2. Formation of large areas of .... is due to the precipitation of very little rains on these areas.
3. In condensation process, water vapor .... thermal energy and changes again into liquid water.

(B) Give a reason for the following :

The weather in the area faraway from the equator is very cold.

....

2 (A) Put (✓) or (✗) :

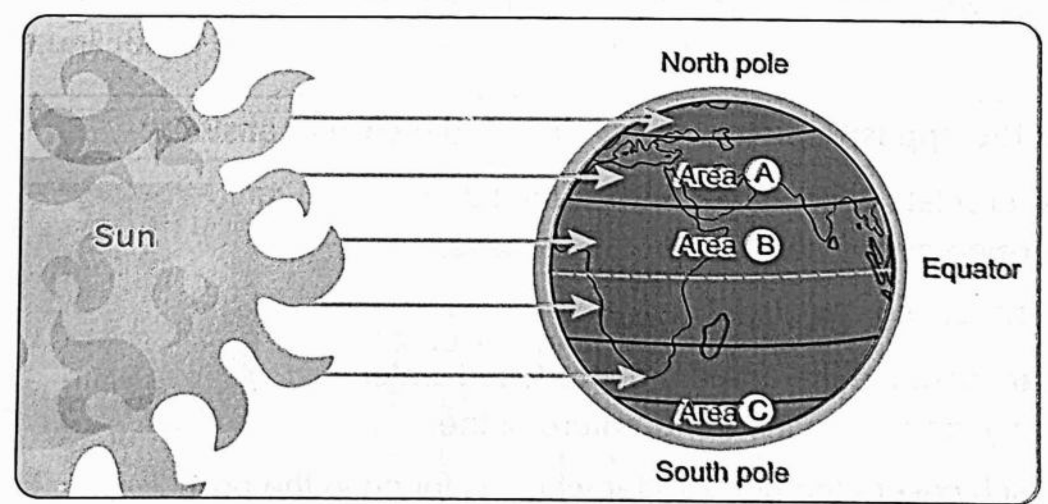
1. When rainwater hits the ground, it may flow across the land in the form of evaporation. ( )
2. The force of gravity affects the movement of water in the water cycle. ( )
3. Temperature and precipitation in the areas away the equator control the weather in these areas. ( )

(B) What happens if ... ?

Water vapor in the sky loses a big amount of thermal energy.

....

3 Look at the following figure, then choose the correct answer :



1. The weather in area (A) is .... (hot – warm – very cold)
2. The sun rays fall perpendicular on area .... (A – B – C)
3. The weather is very cold in area .... (A – B – C)

Self-Assessment 4 till Lesson 4

1 (A) Correct the underlined words :

1. <u>Friction</u> force causes warmer water to move downward below cooler water. (..................)
2. When warm air contains a big amount of water vapor, it loses this water in the form of <u>steam</u>. (..................)
3. Liquid water gains <u>electrical</u> energy when it changes into water vapor. (..................)

(B) Give a reason for the following :

When cold air is warmed by the solar energy, it rises upward.

....

2 (A) Write the scientific term of each of the following :

1. The state of water that is produced when an amount of liquid water gains a big amount of thermal energy. (..................)
2. It is the process in which water changes from gas state to liquid state. (..................)
3. It is formed from millions of tiny water droplets which are condensed from water vapor in the sky. (..................)

(B) What happens to ... ?

The density and the movement of air if the temperature of air increases in an area.

....

3 Look at the opposite picture, then choose the correct answer :

1. Water droplets which are found on the lid, are formed by the help of .... process.
   (condensation – precipitation)
2. We can increase the amount of produced water vapor by increasing the temperature of the ....
   (lid which covers the pot – water which is found in the pot)
3. The process which helps in the formation of water dropletes on the lid is the same process which helps in the formation of ....
   (clouds in the sky – ice on the top of mountains)

Model Exam

on Concept (3.1)

Total mark

___
15

1 (A) Complete the following sentences using the words below : *(5 marks)*

(solar – water vapor – rain – density)

1. When .... in air hits a cold glass of juice it will condense.
2. The amount of .... energy that reaches the Earth affects the rate of evaporation process in the water cycle.
3. Cold water has more .... than warm water so it moves under the warm water.
4. When warm air contains enough water vapor, it loses this water in the form of ....

(B) Give a reason for the following :

Hot air moves upward above cold air.

....

2 (A) Correct the underlined words : *(5 marks)*

1. The heat of the Sun transfers through space to Earth's atmosphere by convection. (.....................)
2. Deserts are formed by the effect of moist air. (.....................)
3. Flamingos migrate to the large salt lake in Turkey when the weather is very cold there. (.....................)
4. Evaporation of water means that liquid water changes into ice. (.....................)

(B) What happens if ...?

You cover some leaves in a plant with a plastic bag then leave the plant in the direct sunlight for a while.

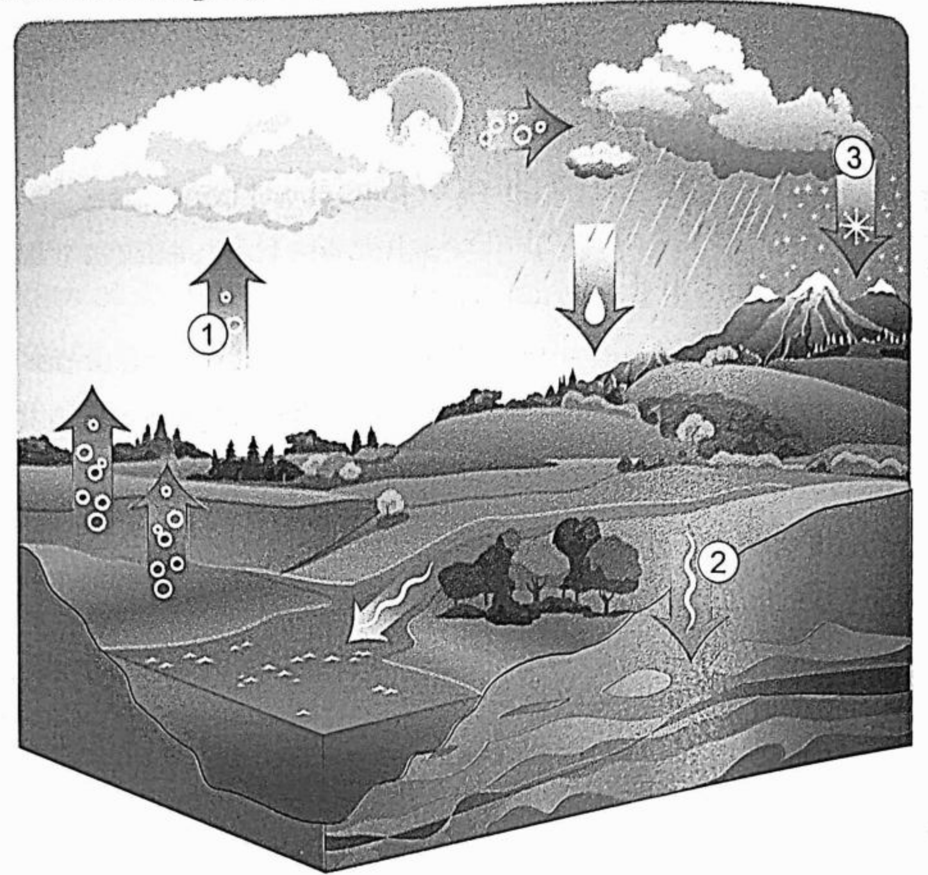
....

3 (A) Choose from column (B) what suits it in column (A) : *(5 marks)*

(A)	(B)
1. Condensation	a. falling of snow in an area.
2. Evaporation	b. formation of fog on a road.
3. Precipitation	c. formation of a glacier in an area.
4. Runoff	d. drying of a shallow lake.
	e. flowing of river's water into a sea.

1. .... 2. .... 3. .... 4. ....

(B) Look at the following figure, then put (✓) or (X) :



1. Arrow number ① indicates lose of thermal energy. (
2. Arrow number ② indicates the effect of the gravitational force on water. (
3. Arrow number ③ represents precipitation precess. (



Question 01 — Choose the correct answers

1. Wind helps in transporting water through the water cycle by carrying ...
   - a) sand grains
   - b) small rocks
   - c) plant leaves
   - d) water vapor

2. Melting of snow at the two poles, is due to the thermal energy that comes from the ....
   - a) wind
   - b) moon
   - c) Sun
   - d) electricity

3. Fresh water stored underground in the form of groundwater by the effect of ....
   - a) condensation
   - b) electricity
   - c) gravity
   - d) evaporation

4. Wind is produced by the help of ....
   - a) water turbine
   - b) electric generator
   - c) solar radiation
   - d) electric motor

5. About 10% of the water vapor in air comes from transpiration of ......
   - a) humans
   - b) rocks
   - c) plants
   - d) animals

6. The large Salt Lake in Turkey is dried up due to the increase in the rate of .... process.
   - a) melting
   - b) freezing
   - c) evaporation
   - d) condensation

7. Leakage of water into groundwater reservoirs is due to the action of ......
   - a) condensation
   - b) gravity
   - c) precipitation
   - d) evaporation

8. Water in oceans changes into......... when water gains thermal energy.
   - a) liquid water
   - b) water vapor
   - c) snow
   - d) sleet

9. Increasing and decreasing of water level in some lakes is due to the transfer of .... through the water cycle.
   - a) rocks
   - b) energy
   - c) work
   - d) wind

10. The distribution of .... energy on the Earth's surface plays an important role in evaporation process in the water cycle.
    - a) electrical
    - b) solar
    - c) sound
    - d) kinetic

11. Movement of air can change the state of water from .... state to .... state by evaporation process.
    - a) gas - liquid
    - b) liquid-gas
    - c) solid-gas
    - d) solid - liquid

12. When warm air is cooled, it will move ....
    - a) upward
    - b) downward
    - c) forward
    - d) backward

13. When a liquid is heated, it will .... and become less dense and ....
    - a) expand - heavier
    - b) contract - lighter
    - c) expand - lighter
    - d) contract - heavier

14. Clouds are formed due to .... process.
    - a) melting
    - b) collection
    - c) condensation
    - d) freezing

15. Both of .... and .... processes happen due to the decrease of thermal energy
    - a) melting - freezing
    - b) melting - condensation
    - c) freezing - condensation
    - d) melting - evaporation

16. When the water in clouds becomes too heavy, it falls on the ground by a process called ....
    - a) evaporation
    - b) precipitation
    - c) condensation
    - d) collection

17. Due to convection, ... air moves upward above .... air.
    - a) hot - cold
    - b) cold - hot
    - c) cold - warm
    - d) warm - hot

18. The form of evaporation process that takes place from the leaves of plants is called ....
    - a) transpiration
    - b) collection
    - c) melting
    - d) freezing

19. Gathering the water of rains to form streams, rivers or lakes, is called ....
    - a) precipitation
    - b) condensatio n
    - c) collection
    - d) evaporation

20. Water vapor that is present in air changes into .... when it hits a cold water bottle.
    - a) gas state
    - b) steam
    - c) liquid water
    - d) juice

Question 02 put (true) or (false)

1. Water comes out from stomata to the air in the form of water vapor. ( )
2. As air is warmed by the Sun, the air will fall down ( )
3. All living organisms on the Earth depend on water to survive. ( )
4. Clouds consist of tiny water droplets that have condensed out of the air. ( )
5. Drying up of water in the large Salt Lake in Turkey is due to condensation process. ( )
6. Water reservoirs on the Earth include oceans and seas only. ( )
7. Convection currents in Earth's atmosphere help in determining the regional climate. ( )
8. Clouds are made up of millions of tiny water droplets. ( )
9. Glaciers move from the top of mountains to the bottom of mountains due to the effect of gravity. ( )
10. The heat of the Sun transfers through space to Earth's atmosphere by convection. ( )
11. Transferring of energy in the water cycle causes increasing and decreasing of water level in some lakes. ( )
12. The two factors which control the movement of water in the water cycle are gravity force and solar energy. ( )
13. When fresh water changes into snow and ice, this means that fresh water gains thermal energy. ( )
14. Unequal heating of the Earth between the poles and the equator generates wind. ( )
15. In the water cycle, the step that follows condensation process is runoff. ( )
16. Rains fall and collect in oceans by the effect of gravity force. ( )
17. Wind is caused by the continuous exchange between warm air and cold air. ( )
18. Flamingos migrate to the large Salt Lake in Turkey when the weather is very cold. ( )
19. Deserts are formed by the effect of moist air. ( )



20. Evaporation of water means that liquid water changes into ice. ( )
21. You can see transpiration process when you set a plant its leaves covered with a plastic bag in the sunlight. ( )
22. The water cycle is a movement of water through different water reservoirs on the Earth. ( )
23. States of water change when water gains or loses energy. ( )
24. Melting and transpiration processes only occur by cooling. ( )
25. Falling of sleet in an area is an example of precipitation process. ( )

Question 03 — Complete the following sentences

1. Due to convection currents, hot air moves .... cold air.
2. When the water droplets in the clouds become too heavy, it causes .... process.
3. Formation of fog is due to the .... of water vapor on a field in early morning.
4. Water vapor comes out from plant leaves through the ....
5. The movement of water through different water reservoirs on the Earth is called the ....
6. Energy of the Sun causes the changing of liquid water into .... by evaporation process.
7. water is collected in oceans by the effect of .... force.
8. Clouds are made up of millions of tiny .... droplets.
9. The water starts to move or change its way of movement when a .... affects it.
10. The amount of .... energy that reaches the Earth affects the rate of evaporation process in the water cycle.
11. Evaporation causes changing of the water in rivers and seas into ....
12. Water vapor condenses in the sky to form ....
13. The force which cause moving down of water from the top of a mountain is called ....
14. Heat can transfer through the Earth's atmosphere due to the effect of .... currents.
15. Transpiration is a form of .... process, while condensation takes place by the decrease in the .... energy.



Question 04 — write the scientific term for each of the following

1. It is the process in which matter changes from liquid state to gas state. ( )
2. It is the process which helps in formation of clouds in the sky. ( )
3. It is the process in which water falls on Earth in the form of rain, sleet, snow or hail ( )
4. It is the process in which matter changes from gas state to liquid state ( )
5. It is the step in which rainwater falling on the Earth's surface is collected in different water bodies. ( )
6. It is the step in which water flows along the Earth's surface into the river and then into the ocean or sea. ( )
7. The cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to the Earth in the form of rain, sleet or snow. ( )
8. The main source of energy which affects the water cycle ( )
9. It is a form of evaporation that takes place through the stomata which are found in plant leaves. ( )
10. It is the method by which heat transfers within liquids and gases, where hot molecules rise upward, while colder molecules fall down. ( )
11. It is the method by which heat of the Sun transfers from the space to Earth's atmosphere ( )
12. It is caused when air warmed by the solar radiation rises and then replaced by cooler air that flows from nearby areas. ( )
13. The force which causes moving down of water from higher places to lower places on the Earth. ( )
14. Large areas of land which are formed due to the effect of dry air. ( )

Question 05 Give reason for each of the following

1. Formation of clouds in the sky.

....

2. Changing of water from one state to another.

....

3. Changing of some amount of water in water bodies into water vapor

....

4. Hot air moves upward above cold air.

....

5. Formation of fog in the early morning

....

6. Moving down of glaciers from the top of a mountain to its foot.

....

7. The weather in the area near the equator is hot.

....

8. About 10 % of water vapor in air comes from plants.

....

9. Drying up of the large Salt Lake in Turkey in summer season

....

10. The effect of heat is low in the area at the north and south of the equator.

....

11. On adding warm water to cold water without shaking, the warm water stay above cold water without mixing.

....

12. The formation of wind is determined by the amount of solar radiation received by the Earth.

....

Question 06 What happens if ..... ?

1. Moist air touches a cold bottle of water

....

2. The weather if the sun rays fall very inclined on an area.

....

3. The level of water in a lake when the rate of evaporation increases.

....

4. Water of seas and oceans gains big amount of thermal energy

....

8. The density of air if the cold air is warmed by the effect of solar energy.

....

9. You cover some leaves in a plant with a plastic bag then put this plant in the direct sunlight for a while

....

10. The air temperature if there is no wind on Earth.

....

11. Water vapor in air condenses in the sky.

....

12. The movement of air when solar radiation heats up the air in an area.

....

13. The water droplets in the clouds become very heavy

....

تم بحمد الله ،

بسم الله الرحمن الرحيم " إِنَّ الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ إِنَّا لَا نُضِيعُ أَجْرَ مَنْ أَحْسَنَ عَمَلًا " صدق الله العظيم

Answers





Question 01 Choose the correct answers

1. Wind helps in transporting water through the water cycle by carrying ...

   (a) sand grains (b) small rocks (c) plant leaves (d) water vapor

2. Melting of snow at the two poles, is due to the thermal energy that comes from the ....

   (a) wind (b) moon (c) Sun (d) electricity

3. Fresh water stored underground in the form of groundwater by the effect of ....

   (a) condensation (b) electricity (c) gravity (d) evaporation

4. Wind is produced by the help of ....

   (a) water turbine (b) electric generator (c) solar radiation (d) electric motor

5. About 10% of the water vapor in air comes from transpiration of ......

   (a) humans (b) rocks (c) plants (d) animals

6. The large Salt Lake in Turkey is dried up due to the increase in the rate of .... process.

   (a) melting (b) freezing (c) evaporation (d) condensation

7. Leakage of water into groundwater reservoirs is due to the action of ......

   (a) condensation (b) gravity (c) precipitation (d) evaporation

8. Water in oceans changes into......... when water gains thermal energy.

   (a) liquid water (b) water vapor (c) snow (d) sleet

9. Increasing and decreasing of water level in some lakes is due to the transfer of .... through the water cycle.

   (a) rocks (b) energy (c) work (d) wind





10. The distribution of .... energy on the Earth's surface plays an important role in evaporation process in the water cycle.
   - a) electrical
   - b) solar
   - c) sound
   - d) kinetic

11. Movement of air can change the state of water from .... state to .... state by evaporation process.
   - a) gas - liquid
   - b) liquid-gas
   - c) solid-gas
   - d) solid - liquid

12. When warm air is cooled, it will move ....
   - a) upward
   - b) downward
   - c) forward
   - d) backward

13. When a liquid is heated, it will .... and become less dense and ....
   - a) expand - heavier
   - b) contract - lighter
   - c) expand - lighter
   - d) contract - heavier

14. Clouds are formed due to .... process.
   - a) melting
   - b) collection
   - c) condensation
   - d) freezing

15. Both of .... and .... processes happen due to the decrease of thermal energy
   - a) melting - freezing
   - b) melting - condensation
   - c) freezing - condensation
   - d) melting - evaporation

16. When the water in clouds becomes too heavy, it falls on the ground by a process called ....
   - a) evaporation
   - b) precipitation
   - c) condensation
   - d) collection

17. Due to convection, ... air moves upward above .... air.
   - a) hot - cold
   - b) cold - hot
   - c) cold - warm
   - d) warm - hot

18. The form of evaporation process that takes place from the leaves of plants is called ....
   - a) transpiration
   - b) collection
   - c) melting
   - d) freezing

19. Gathering the water of rains to form streams, rivers or lakes, is called ....
   - a) precipitation
   - b) condensatio n
   - c) collection
   - d) evaporation

20. Water vapor that is present in air changes into .... when it hits a cold water bottle.
   - a) gas state
   - b) steam
   - c) liquid water
   - d) juice

Question 02 put (true) or (false)

1. Water comes out from stomata to the air in the form of water vapor. ✔
2. As air is warmed by the Sun, the air will fall down ✖
3. All living organisms on the Earth depend on water to survive. ✔
4. Clouds consist of tiny water droplets that have condensed out of the air. ✔
5. Drying up of water in the large Salt Lake in Turkey is due to condensation process. ✖
6. Water reservoirs on the Earth include oceans and seas only. ✖
7. Convection currents in Earth's atmosphere help in determining the regional climate. ✔
8. Clouds are made up of millions of tiny water droplets. ✔
9. Glaciers move from the top of mountains to the bottom of mountains due to the effect of gravity. ✔
10. The heat of the Sun transfers through space to Earth's atmosphere by convection. ✖
11. Transferring of energy in the water cycle causes increasing and decreasing of water level in some lakes. ✔
12. The two factors which control the movement of water in the water cycle are gravity force and solar energy. ✔
13. When fresh water changes into snow and ice, this means that fresh water gains thermal energy. ✖
14. Unequal heating of the Earth between the poles and the equator generates wind. ✔
15. In the water cycle, the step that follows condensation process is runoff. ✖
16. Rains fall and collect in oceans by the effect of gravity force. ✔
17. Wind is caused by the continuous exchange between warm air and cold air. ✔
18. Flamingos migrate to the large Salt Lake in Turkey when the weather is very cold. ✖
19. Deserts are formed by the effect of moist air. ✖

20. Evaporation of water means that liquid water changes into ice. ✗
21. You can see transpiration process when you set a plant its leaves covered with a plastic bag in the sunlight. 
22. The water cycle is a movement of water through different water reservoirs on the Earth. 
23. States of water change when water gains or loses energy. 
24. Melting and transpiration processes only occur by cooling. 
25. Falling of sleet in an area is an example of precipitation process. ✓

Question 03 — Complete the following sentences

1. Due to convection currents, hot air moves above cold air.
2. When the water droplets in the clouds become too heavy, it causes precipitation process.
3. Formation of fog is due to the condensation of water vapor on a field in early morning.
4. Water vapor comes out from plant leaves through the stomata.
5. The movement of water through different water reservoirs on the Earth is called the water cycle.
6. Energy of the Sun causes the changing of liquid water into water vapor by evaporation process.
7. water is collected in oceans by the effect of gravity force.
8. Clouds are made up of millions of tiny water droplets.
9. The water starts to move or change its way of movement when a force affects it.
10. The amount of solar energy that reaches the Earth affects the rate of evaporation process in the water cycle.
11. Evaporation causes changing of the water in rivers and seas into water vapor.
12. Water vapor condenses in the sky to form clouds.
13. The force which cause moving down of water from the top of a mountain is called gravity.
14. Heat can transfer through the Earth's atmosphere due to the effect of convection currents.
15. Transpiration is a form of evaporation process, while condensation takes place by the decrease in the thermal energy.



Question 04 write the scientific term for each of the following

	Statement	Term
1	It is the process in which matter changes from liquid state to gas state.	Evaporation process
2	It is the process which helps in formation of clouds in the sky.	Condensation process
3	It is the process in which water falls on Earth in the form of rain, sleet, snow or hail	Precipitation process
4	It is the process in which matter changes from gas state to liquid state	Condensation process
5	It is the step in which rainwater falling on the Earth's surface is collected in different water bodies.	Collection
6	It is the step in which water flows along the Earth's surface into the river and then into the ocean or sea.	Runoff
7	The cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to the Earth in the form of rain, sleet or snow.	Water cycle
8	The main source of energy which affects the water cycle	The Sun
9	It is a form of evaporation that takes place through the stomata which are found in plant leaves.	Transpiration process
10	It is the method by which heat transfers within liquids and gases, where hot molecules rise upward, while colder molecules fall down.	Convection
11	It is the method by which heat of the Sun transfers from the space to Earth's atmosphere	Radiation
12	It is caused when air warmed by the solar radiation rises and then replaced by cooler air that flows from nearby areas.	Wind
13	The force which causes moving down of water from higher places to lower places on the Earth.	Gravity
14	Large areas of land which are formed due to the effect of dry air.	Deserts

Question 05 Give reason for each of the following

1. Formation of clouds in the sky.

   Due to condensation of water vapour into water droplets that adhere to particles of dust or smoke in the air

2. Changing of water from one state to another.

   Due to gaining or losing of thermal energy

3. Changing of some amount of water in water bodies into water vapor

   Due to evaporation process as a result of gaining of thermal energy

4. Hot air moves upward above cold air.

   Due to the effect of convection where hot air has less density so it rises upward, while cold air has more density so it falls down

5. Formation of fog in the early morning

   Due to condensation of water vapor that is found in the air

6. Moving down of glaciers from the top of a mountain to its foot.

   Due to the effect of gravity on glaciers

7. The weather in the area near the equator is hot.

   Because the sun rays fall perpendicular on Earth's surface giving high effect of heat

8. About 10 % of water vapor in air comes from plants.

   Due to transpiration process which happens by plants

9. Drying up of the large Salt Lake in Turkey in summer season

   Due to the increase in the evaporation of the lake water

10. The effect of heat is low in the area at the north and south of the equator.

    Because the sun rays fall semi-inclined on Earth's surface of these areas, so the weather is warm

11. On adding warm water to cold water without shaking, the warm water stay above cold water without mixing.

Due to the effect of convection, as warm water has low density than cold water, so warm water will stay above cold water

12. The formation of wind is determined by the amount of solar radiation received by the Earth.
Because warm air rises upward when it is heated by solar radiation and it is replaced by cooler air that flows from nearby areas

Question 06 What happens if ..... ?

1. Moist air touches a cold bottle of water

Water vapor which is found in air condenses on the surface of the bottle

2. The weather if the sun rays fall very inclined on an area.

The weather of this area becomes very cold

3. The level of water in a lake when the rate of evaporation increases.

The level of water will decrease

4. Water of seas and oceans gains big amount of thermal energy

Water of seas and oceans changes into water vapor in air

8. The density of air if the cold air is warmed by the effect of solar energy.

The density of the air will decrease

9. You cover some leaves in a plant with a plastic bag then put this plant in the direct sunlight for a while

Water droplets will be formed inside the bag

10. The air temperature if there is no wind on Earth.

The regions around the equator become extremely hot and the poles will completely freeze

11. Water vapor in air condenses in the sky.

<u>Clouds are formed in the sky</u>

12. The movement of air when solar radiation heats up the air in an area.

<u>The air will move upward in this area</u>

13. The water droplets in the clouds become very heavy

<u>Water droplets fall in the form of rain</u>

تم بحمد الله ،

بسم الله الرحمن الرحيم " إِنَّ الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ إِنَّا لَا نُضِيعُ أَجْرَ مَنْ أَحْسَنَ عَمَلًا " صدق الله العظيم



Concept 3.1 Lesson 1 Exam

1. Choose the correct answer:-

1. The large salt lake in turkey is dried up duo to the increase in the rate of……………
   a. Melting b. freezing c. evaporation d. condensation
2. In winter, rain falls duo to …………………process
   a. Condensation b. evaporation c. collection d. precipitation
3. The distribution of ……………… energy on the earth's surface plays an important role in evaporation process in the water cycle
   a. Electrical b. solar c. sound d. kinetic
4. Moderate regions are areas in which the evaporation process is ………………
   a. The greatest b. the smallest c. moderate d. absent

2. Choose from column (B) what suits it in column (A):-

(A)	(B)
1. Condensation 2. Evaporation 3. Precipitation 4. Runoff	a.Falling of snow in an area b. Formatting of fog on a road c. Formatting of a glacier in an area d. Dying of a shallow lake e. Flowing of river's water into a sea

1. ……………… 2. ………………… 3. …………………… 4. …………………

3. Put ( ) or (×):-

1. Dying up of water in the large salt lake in turkey is duo to condensation process ( )
2. Flamingos migrate to the large salt lake in turkey when the weather is very cold there( )
3. States of water change when water gains or loses energy ( )
4. Falling of hall in coolest regions is an example of evaporation process ( )

4. Write the scientific terms of each of the following:-

1. The main source of energy which affects the water cycle (………………………)
2. It is the process in which matter changes from liquid state to gas state (………………………)
3. It is the step in which water flows along the earth's surface into the river and then into the ocean or sea (……………………………)



5. Give reason for:-

1. Formatting of fog in the early morning

   ……

2. Changing of water from one state to another

   ……

6. What happen to……?

1. The level of water in a lake when the rate of evaporation increases

   ……

2. The snow when sunlight falls on it

   ……

Concept 3.1 Lesson 2 Exam

1. Choose the correct answer:-

2. Leakage of water into groundwater reservoirs is duo to the action of…………..

   a. Condensation b. gravity c. precipitation d. evaporation

3. Both …………and ………… process happen duo to the decreases of thermal energy

   a. Melting-freezing b. melting-condensation
   c. freezing-condensation d. melting-evaporation

4. About 10% of the water vapor in air comes from transpiration of …………………

   a. Humans b. rocks c. animals d. plants

5. The form of water that is found in air and sometimes we cannot see it is the……

   a. Liquid water b. water vapor c. ice d. snow

6. When the water in clouds becomes too heavy, it falls on the ground by a…... process

   a. Evaporation b. precipitation c. condensation d. collection

2- Put ( ) or (×):-

1. Water reservoirs on the earth include oceans and seas only ( )
2. The two factors which control the movement of water in the water cycle are gravity force and solar energy ( )
3. When the sun heats the water in a river, the water changes into gas state ( )
4. As a result of low temperature, water returns back into water vapor ( )
5. Clouds are made up of millions of tiny water droplets ( )



3- Write the scientific terms of each of the following:-

1. They are the places of storing water on the earth (…………………)
2. It is the form of evaporation that takes place through the stomata which are found in plant leaves (…………………)
3. The force which causes moving down of water from higher places to lower places on the earth (…………………)

4- Give reason for:-

1. Moving down of glaciers from the top of a mountain to its foot

   ……………………………………………………………………………………………..
2. About 10% of water vapor in air comes from plants

   ……………………………………………………………………………………………..

5- What happen for……?

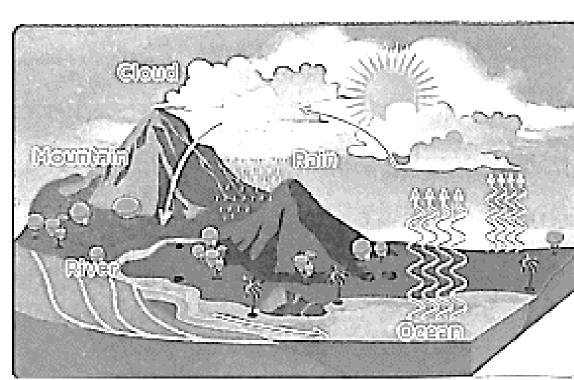
1. Moist air touches a cold bottle of water

   ……………………………………………………………………………………………
2. The water droplets in the clouds become very heavy

   ……………………………………………………………………………………………

6- Look at the opposite figure, then answer the following sentence: -

1. This picture shows the …………..



2. Choose the correct answer:
   1. The rain falling on the mountain is a form of ……….. (precipitation – cloud)
   2. The rain on the mountains runs into the……… and goes to the ocean (river – ocean)
   3. When the sun heats up the water in the ocean, it will………… (run off – evaporation)



Concept 3.1 Lesson 3 Exam

1. Choose the correct answer:-

1. Gathering the water of rains to form streams, rivers or lakes is called……………
   a. Precipitation b. evaporation c. collection d. condensation
2. The air which is found in the atmosphere heats up by the help of ………………
   a. moon b. heater c. gravity d. sun
3. Water in oceans changes into………… when water gains thermal energy
   a. Liquid water b. water vapor c. snow d. sleet
4. The weather of the areas near the equator is………………
   a. Hot and humid b. hot and snowy c. warm and humid d. warm and snowy
5. When the sun rays fall semi-inclined on earth's surface, it is distributed on a large area giving…………… effect of heat and the weather become…………………
   a. High-warm b. low-warm c. high-cold d. low-cold

2. Put (√) or (×):-

1. All living organisms on the earth depend on water to survive ( )
2. Convection causes the movement of low density air above the high density air ( )
3. The heat of the sun transfers through space to earth's atmosphere by convection ( )
4. Rains fall and collect in oceans by the effect of gravity force ( )
5. The weather in the area near the equator is very cold due to falling of sun rays perpendicular on earth's surface ( )

3. Write the scientific terms of each of the following:-

1. the cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to the earth in the form of rain, sleet or snow (……………………)
2. it is the method by which heat transfers within liquids and gases, where hot molecules rise upward, while colder molecules fall down (……………………)
3. it is the method by which heat of the sun transfers from the space to earth's atmosphere (……………………)



4. Complete the following sentence:-

1. Heat can transfer through the earth's atmosphere due to the effect of ………currents
2. Fresh water changes into water vapor when it……… thermal energy, while fresh water changes into………when it loses thermal energy
3. Cold water has more ………… than warm water, so it moves under the warm water
4. Due to convection currents, hot air moves …………… cold air

5. Give reason for:-

1. Hot air moves upward above cold air
   ………
2. The effect of heat is low in the area at the north and south of the equator
   ………
   ………………

6. What happen to ……?

1. The density of air if the cold air is warmed by the effect of solar energy
   ………

Concept 3.1 Lesson 4 Exam

1. Choose the correct answer:-

1. During washing your hand, water falls down from the water tap toward your hands by the effect of ………………
   a. Condensation b. freezing c. gravity d. precipitation
2. Wind is produced by the help of …………
   a. Water turbine b. electric generator c. solar radiation d. electric motor
3. When warm air contains big amount of ……………, the warm air loses it in the form of rain
   a. Ice b. liquid water c. sleet d. water vapor
4. The………… air causes the formation of many desert areas around the earth's surface
   a. Cold b. moisted c. dry d. dusty



2. Put (√) or (×):-

1. Duo to radiation currents, warm water moves above cold water ( )
2. As air is warmed by the sun, the air will fall down ( )
3. Wind is caused by the continuous exchange between warm air and cold air ( )
4. Desert are formed by the effect of moist air ( )

3. Write the scientific terms of each of the following:-

1. It's the main source which is responsible for warming of air and forming wind (………..)
2. Large areas of land which are formed due to the effect of dry air (……………….)

4. Give reason for:-

1. The formatting of wind is determined by the amount of solar radiation received by the earth

………

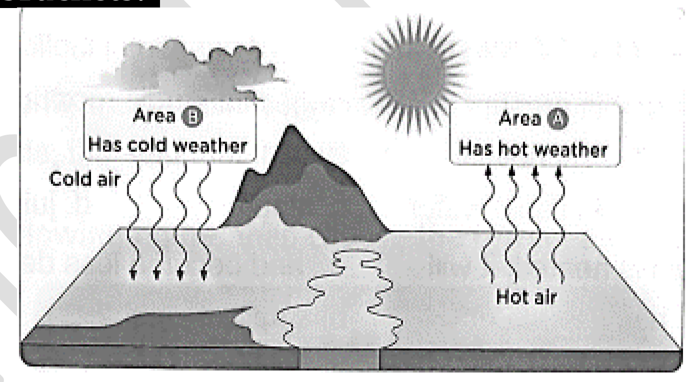
5. What happen to ……?

1. The movement of air when solar radiation heats up the air in an area

………

………

6. Look at the opposite figure, then complete the following sentence using the words between brackets:-



(more - solar radiation – loses – less)

1. Air in area (A) moves upward, because it has ……………… density
2. Air in area (A) becomes hot by the effect of ………………
3. Air in area (B) moves downward, because it has……………… density
4. When air in area (A) moves to area (B), it………….. thermal energy, so it will fall down near the earth's surface



Concept 3.1 Model Exam

1. Choose the correct answer:-

2. Water vapor that is present in air changes into …… when it hits a cold water bottle
   a. Gas state b. liquid state c. steam d. juice
3. The large salt lake in turkey is dried up duo to the increase in the rate of … process
   a. Melting b. freezing c. evaporation d. condensation
4. Wind helps in transporting water through the water cycle by carrying ……………..
   a. Sand grains b. small rocks c. plant leaves d. water vapor

2. Choose from column (B) what suits it in column (A):-

(A)	(B)
1. Condensation 2. Evaporation 3. Precipitation 4. Runoff	a. Falling of snow in an area b. Formatting of fog on a road c. Formatting of a glacier in an area d. Drying of shallow lake e. Flowing of river's water into a sea

1. …………………	2. …………………	3. ……………………	4. …………………

3. Put (√) or (×):-

1. As air is warmed by the sun, the air will fall down ( )
2. Rains fall and collect in oceans by the effect of gravity force ( )
3. Water comes out from stomata to the air in the form of water vapor ( )
4. In the water cycle, the step that follows condensation process is runoff ( )

4. Write the scientific terms of each of the following:-

1. The cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to the earth in the form of rain, sleet or snow (………………………)
2. It is caused when air warmed by the solar radiation rises and then replaced by cooler air that flows from nearby areas (……………………)

5. Complete the following sentence using the words blow:-

(solar - water vapor – rain – density)

1. When …………… in air hits a cold glass of juice it will condense
2. The amount of …………… energy that reaches the earth affects the rate of evaporation process in the water cycle
3. Cold water has more ……… than the warm water so it moves under the warm water
4. When warm air contains enough water vapor, it loses this water in the form of



6. Correct the underlined word:-

1. The heat of the sun transfers through the space to earth's atmosphere by **convection** (……………………)
2. Desert are formed by the effect of **moist** air (……………………)
3. Flamingo migrate to the large salt lake in turkey when the weather is **very cold** there (……………………)
4. Evaporation of water means that liquid water changes into **ice** (………..…………)

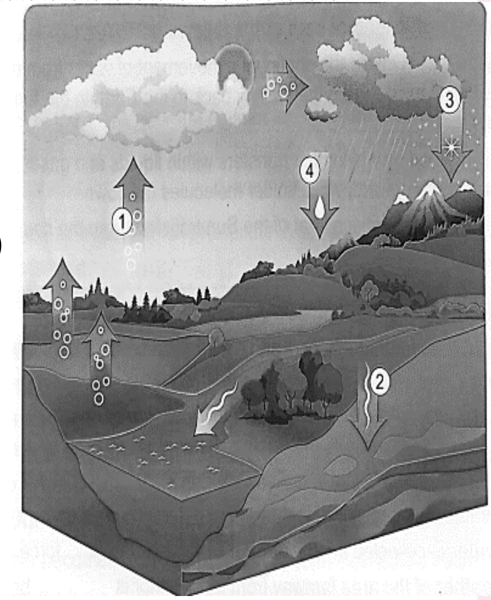
7. Give reason for:-

1. Formation of clouds in the sky
………
2. Hot air move upward above cold air
………

8. What happen ……?

1. (To) The air temperature if there is no wind on earth
………
………………….
2. (If) You cover some leaves in a plant with a plastic bag then leave the plant in the direct sunlight for a while
………

9. Look at the opposite figure, then put (√) or (×):-



1. Arrow number (1) indicates lose of thermal energy ( )
2. Arrow number (2) indicates the effect of the gravitational force on water ( )
3. Arrow number (3) represents precipitation process ( )
4. Arrow number (4) indicates gain of thermal energy ( )



Concept 3.2 Lesson 1 Exam

1. Choose the correct answer:-

1. At the top of the mountain, the atmospheric pressure is………… and the temperature is……………… compared to the bottom of the mountain.
   a. Lower - lower b. higher – higher c. higher – lower d. lower – higher
2. A rain shadow is an area that is formed behind a……………………
   a. Tree b. mountain c. building d. bridge
3. If the temperature at the bottom of a mountain is 15°C, this means it may reach………… °C at the top of this mountain.
   a. 30 b. 25 c. 20 d. 2
4. Water vapor in the atmosphere can condense and form……………………
   a. Air b. clouds c. sunlight d. wind

2. Put (√) or (×):-

1. People in desert areas face a lot of challenges in desert farming. ( )
2. Precipitation occurs after condensation of water vapor in the sky. ( )
3. The properties of the atmosphere at the top of the mountain and at its bottom are similar ( )
4. When the hot and humid air meet the cold and dry air, the hot air rises ( )

3. Write the scientific terms of each of the following:-

1. A scientist who studies the atmosphere to understand Earth's weather (…………………)
2. A side of mountain ranges at coastal regions that faces the coast (………………………)
3. A side of mountain ranges at coastal regions in which the rain shadow phenomenon occurs

4.Give reason for:-

1. Sometimes people prefer to live in desert land instead of cities.
   ……………………………………………………………………………………………………

5.What happen to……?

1. The atmospheric pressure, as we move up toward the top of a mountain.
   ……………………………………………………………………………………………………



6.complete the following sentence:-

1. The amount of rain that falls on deserts ……… than that which falls in other biomes
2. The scientist who studies the earth's atmosphere is called ………………
3. Farmers in desert may use the …………… energy produced from the sun to power their farms
4. When the hot and humid air meet the cold and dry air, the …………… air rises

Concept 3.2 Lesson 2 Exam

1. Choose the correct answer:-

2. The barometer is used to measure……………………

a. air temperature. b. atmospheric pressure c. mass. d. length.

3. Heat transfers from the…………………… object to the................. object.

a. big – small b. small – big c. hot-cold d. cold-hot

4. Land heats up………….. and cools down………….. compared to that of water.

a. quickly – quickly b. slowly - slowly d. slowly – quickly c. quickly - slowly

5. If the temperature of the sand in a desert is 50°C at noon, its temperature may reach ………………..°C at night.

a. 20 b. 60 c. 70 d. 80

2. Put (√) or (×):-

1. The sand absorbs heat slower than water during daytime. ( )
2. Sand cools down in a shorter time than sea water during nighttime. ( )
3. Mapping data allows meteorologists to represent data about weather conditions. ( )

3.Write the scientific terms of each of the following:

1. A scientist who studies the Earth's atmosphere and forecasts the weather. (………)
2. A device used to measure temperature. (…………………………)
3. It is the weight of the air above an area. (………………………………………)

4. Give reason for:-

1. At noon, we may not be able to stand barefoot on the sand of a beach in summer, but we can swim in the sea water……………………………………………. ……………………………………………………………………



2. What happen to……?

1. The temperature of a desert sand at night

……

3. Look at the following picture that shows the using of concrete in regions with hot summers and cold winters, then choose the correct answer:-

1. The temperature inside the building is regulated by absorbing …………… energy during the day and releasing it at night

a. Chemical b. sound

c. thermal d. magnetic



2. When sunlight falls on the concrete its temperature ……………………

a. Increases b. don't change

c. decreases slowly d. decreases quick

Concept 3.2 Lesson 3 Exam

1. Choose the correct answer:-

1. Convection is a way of transferring of heat in liquids and gases due to the difference in…………… and…………………..

a. mass color b. shape volume. c. temperature - density. d. color temperature.

2. Heat transfers by convection in……………… and……………..

a. liquids gases. b. solids liquids. c. solids - gases. d. liquids space.

3. Convection currents in the atmosphere are controlled by………………

a. precipitation. b. moon's rotation.

c. the energy from the Sun. d. Earth's rotation.

4. Heat is transferred through the atmosphere by…………………….……

a. convection. b. conduction. c. reflection. d. absorption.

5. When air is heated, its……………………….. changes.

a. Mass b. smell c. color d. density



2. Put (√) or (×):-

1. Cold air has more density than hot air. ( )
2. By increasing the temperature of air, its density decreases. ( )
3. When the air is cooled, it rises up. ( )
4. Hot air rises above colder air. ( )
5. Transfer of heat by convection occurs in solids, liquids and gases. ( )

3. Choose from column (B) what suits it in column (A):-

(A)	(B)
1. Anemometer 2. Weather radar 3. Rain gauge	a. Measuring the atmospheric pressure b. Measuring the wind speed c. Measuring the intensity of precipitation d. Measuring the amount of rain

1. ………………	2. …………………	3. …………………

4. Give reason for:-

1. When air is heated, it expands.

……

5. What happen to……?

1. We boil water in a pot on the stove. (Concerning the movement of hot water and cold water)

……

Concept 3.2 Lesson 4 Exam

1. Choose the correct answer:-

1. Extreme weather conditions include all the following, except……………………

   a. drought b. flooding. c. sandstorms. d. sunrise.

2. The increase in the amount of rain may cause……………

   a. flooding. b. drought. c. sandstorm. d. dust storm,

3. Drought affects all the following, except…………………………

   a. people. b. plants. c. buildings. d. animals.

4. If a driver's visibility range in sunny weather is up to 5 km, the visibility range may reach……………. in stormy weather.

   a. 1 Km or less b. 6 Km c. 8 Km d. 10 Km



2. Put (√) or (×):-

1. Heavy rain may cause drought. ( )
2. Although flooding is harmful, it also has some benefits. ( )
3. Sandstorms blow up from a dry area such as seas and oceans. ( )
4. Floods may cause death of people and animals. ( )
5. Dust storms have harmful effects on the plane engines. ( )

3. Write the scientific terms of each of the following:-

1. A phenomenon in which the condensed water vapor falls on the Earth's surface in the form of rain, snow, sleet or hail. (……………………..…………..)
2. A phenomenon in which very strong winds blow up dust that reduces the visibility during driving cars. (………………………………..…….)

4. Give reason for:-

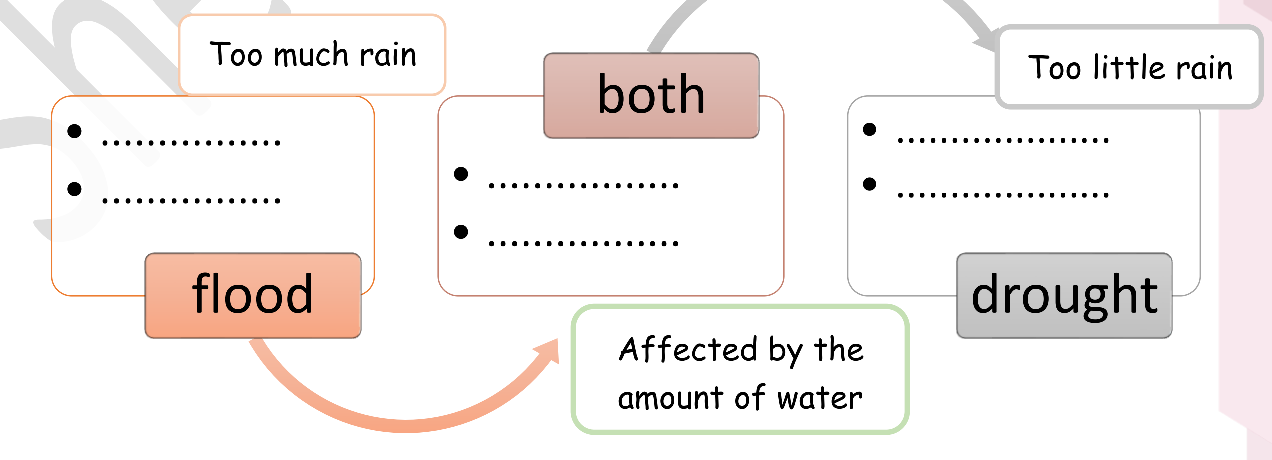
1. Floods have some benefits.
2. Sandstorms have harmful effects on human health

5. What happen to……?

1. Buildings when they are subjected to strong floods.
2. Solar panels when dust accumulates on them.

6. Classify the following extreme weather conditions in venn diagram below using the sentences between brackets:-

(harmful to habitat – overflow of water – shortage of water – animals and humans are affected – the land becomes wet – the land becomes dry)





Concept 3.2 Model Exam

1. Choose the correct answer:-

2. The density of cold dry air is ……… that of hot humid air
   a. More than b. equal to c. less than d, similar to
3. Heat transfers from the ……………… object to the ………………object
   a. Big – small b. hot – cold c. small – big d. cold – hot
4. When air is heated, its ………………… changes
   a. Smell b. color c. density d. mass
5. Drought affects the following, except ………………………
   a. Animals b. plants c. people d. buildings
6. If a driver's visibility range in sunny weather is up to 5 km, the visibility range may reach……………. in stormy weather.
   a. 1 Km or less b. 6 Km c. 8 Km d. 10 Km
6. Heat is transferred through the atmosphere by…………………………..…….
   b. convection. b. conduction. c. reflection. d. absorption.

1. Choose from column (B) what suits it in column (A):-

(A)	(B)
1. Anemometer 2. Weather radar 3. Rain gauge	a. Measuring the atmospheric pressure b. Measuring the wind speed c. Measuring the intensity of precipitation d. Measuring the amount of rain

1. ………………	2. …………………	3. …………………

2. Put (√) or (×):-

1. When rain doesn't fall, soil may dry and plants may die ( )
2. By increasing the temperature of air, its density increases ( )
3. Sand cools down in a shorter time than sea water during nighttime ( )
4. The properties of the atmosphere at the top of the mountain and at its bottom are similar ( )

3. Write the scientific terms of each of the following:-

1. A side of mountains ranges of coastal regions that faces the coast (…………………)
2. A device used to measure atmospheric pressure (…………………)
3. It is the weight of the air above an area (…………………)
4. A phenomenon in which very strong winds blow up dust that reduce the visibility during driving cars (…………………)

4. Complete the following sentence:-

(flooding – drought – decrease – increase – dry- wet)

1. Extreme hot temperatures may causes ………………
2. Heavy rain may cause ………………



3. Sandstorms …………… the chances of car accidents
4. Dust storms …………………… the water quality in irrigation canal
5. Floods result in formation of ……………………… lands
6. Strong winds may blow up sand from a ………………… area such as deserts

5. Give reason for:-

1. Extreme weather became more danger in many places around the world
………………………………………………………………………………………………
…………………………………………………………
2. Formatting of fog in the early morning
………………………………………………………………………………………………
…………………………………………………………

6. What happen to……?

1. The atmospheric pressure, as we move up toward the top of a mountain
………………………………………………………………………………………………
…………………………………………………………
2. Air density, as we move down toward the bottom of a mountain
………………………………………………………………………………………………
…………………………………………………………

7. The following diagram shows the steps of rain shadow phenomenon, complete the following steps using the words below:-

(rises – descends – cools – warms – condenses)

humid air belows against a mountain

air (.......1........), then it (........2..........)

air (........3........), then precipitation occures

air (........4.......), then it (........5........)

air dries the land

Answers

Exam on lesson 1

1. Choose the correct answer:-

1. The large salt lake in turkey is dried up duo to the increase in the rate of..............
   a. Melting b. freezing **c. evaporation** d. condensation
2. In winter, rain falls duo to.......................... process
   a. Condensation b. evaporation c. collection **d. precipitation**
3. The distribution of .... energy on the earth's surface plays an important role in evaporation process in the water cycle
   a. Electrical **b. solar** c. sound d. kinetic
4. Moderate regions are areas in which the evaporation process is ....
   a. The greatest b. the smallest **c. moderate** d. absent

2. Choose from column (B) what suits it in column (A):-

(A)	(B)
1. Condensation	a. Falling of snow in an area
2. Evaporation	b. Formatting of fog on a road
3. Precipitation	c. Formatting of a glacier in an area
4. Runoff	d. Dying of a shallow lake
	e. Flowing of river's water into a sea

1. b **2. d** **3. a** **4. e**

3. Put (□) or (×):-

1. Dying up of water in the large salt lake in turkey is duo to condensation process **(×)**
2. Flamingos migrate to the large salt lake in turkey when the weather is very cold there**(×)**
3. States of water change when water gains or loses energy **(□)**
4. Falling of hall in coolest regions is an example of evaporation process **(×)**

4. Write the scientific terms of each of the following:-

1. The main source of energy which affects the water cycle (**the sun**)
2. It is the process in which matter changes from liquid state to gas state (**evaporation process**)
3. It is the step in which water flows along the earth's surface into the river and then into the ocean or sea (**runoff**)

5. Give reason for:-

1. Formatting of fog in the early morning
   Duo to condensation of water vapor that is found in the air
2. Changing of water from one state to another
   Due to gaining or losing of thermal energy

6. What happen to……?

1. The level of water in a lake when the rate of evaporation increases

   The level of water will decrease

2. The snow when sunlight falls on it

   The snow will melt and change into liquid water

Exam on lesson 2

1. Choose the correct answer:-

1. Leakage of water into groundwater reservoirs is duo to the action of…………..
   a. Condensation b. gravity c. precipitation d. evaporation
2. Both …………and......... process happen duo to the decreases of thermal energy
   a. Melting-freezing b. melting-condensation
   c. freezing-condensation d. melting-evaporation
3. About 10% of the water vapor in air comes from transpiration of …………………
   a. Humans b. rocks c. animals d. plants
4. The form of water that is found in air and sometimes we cannot see it is the…………..
   a. Liquid water b. water vapor c. ice d. snow
5. When the water in clouds becomes too heavy, it falls on the ground by a process called…
   a. Evaporation b. precipitation c. condensation d. collection

2. Put (□) or (×):-

1. Water reservoirs on the earth include oceans and seas only **(×)**
2. The two factors which control the movement of water in the water cycle are gravity force and solar energy **(√)**
3. When the sun heats the water in a river, the water changes into gas state **(□√)**
4. As a result of low temperature, water returns back into water vapor **(×)**
5. Clouds are made up of millions of tiny water droplets **(√□)**

3. Write the scientific terms of each of the following:-

1. They are the places of storing water on the earth (**water reservoirs**)
2. It is the form of evaporation that takes place through the stomata which are found in plant leaves (**transpiration process**)
3. The force which causes moving down of water from higher places to lower places on the earth (**gravity**)

4. Give reason for:-

1. Moving down of glaciers from the top of a mountain to its foot

   Duo to the effect of gravity on glaciers

2. About 10% of water vapor in air comes from plants
   Duo to transpiration process which happens by plants

5. What happen to……?

1. Moist air touches a cold bottle of water
   Water vapor which is found in air condenses on the surface of the bottle
2. The water droplets in the clouds become very heavy
   Water droplets fall in the form of rain

6. Look at the opposite figure, then answer the following sentence:-



1. This picture shows the **water cycle**
   (complete)
2. Choose the correct answer:
   1. The rain falling on the mountain is a form of ………… (**precipitation** – cloud)
   2. The rain on the mountains runs into the……… and goes to the ocean (**river** – ocean)
   3. When the sun heats up the water in the ocean, it will………… (run off – **evaporation**)

Exam on lesson 3

1. Choose the correct answer:-

1. Gathering the water of rains to form streams, rivers or lakes is called……………
   a. Precipitation b. evaporation **c. collection** d. condensation
2. The air which is found in the atmosphere heats up by the help of ………………
   a. moon b. heater c. gravity **d. sun**
3. Water in oceans changes into.................. when water gains thermal energy
   a. Liquid water **b. water vapor** c. snow d. sleet
4. The weather of the areas near the equator is………………
   a. **Hot and humid** b. hot and snowy c. warm and humid d. warm and snowy
5. When the sun rays fall semi-inclined on earth's surface, it is distributed on a large area giving…………… effect of heat and the weather become…………………
   a. High-warm **b. low-warm** c. high-cold d. low-cold

2. Put (□) or (×):-

1. All living organisms on the earth depend on water to survive **(□)**
2. Convection causes the movement of low density air above the high density air **(□)**
3. The heat of the sun transfers through space to earth's atmosphere by convection **(×)**
4. Rains fall and collect in oceans by the effect of gravity force **(□)**
5. The weather in the area near the equator is very cold due to falling of sun rays perpendicular on earth's surface **(×)**

3. Write the scientific terms of each of the following:-

1. the cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to the earth in the form of rain, sleet or snow (**the water cycle**)
2. it is the method by which heat transfers within liquids and gases, where hot molecules rise upward, while colder molecules fall down (**convection**)
3. it is the method by which heat of the sun transfers from the space to earth's atmosphere (**radiation**)

4. Complete the following sentence:-

1. Heat can transfer through the earth's atmosphere due to the effect of **convection** currents
2. Fresh water changes into water vapor when it **gains** thermal energy, while fresh water changes into **ice** when it loses thermal energy
3. Cold water has more **density** than warm water, so it moves under the warm water
4. Due to convection currents, hot air moves **above** cold air

5. Give reason for:-

1. Hot air moves upward above cold air
   Duo to the effect of convection, where hot air has less density, so it rises upward, while cold air has more density, so it falls down.
2. The effect of heat is low in the area at the north and south of the equator **Because the sun rays fall semi-inclined on earth's surface of these areas, so weather is warm.**

6. What happen to……?

1. The density of air if the cold air is warmed by the effect of solar energy
   The density of the air will decrease (become low)

Exam on lesson 4

1. Choose the correct answer:-

1. During washing your hand, water falls down from the water tap toward your hands by the effect of ....
   a. Condensation b. freezing **c. gravity** d. precipitation
2. Wind is produced by the help of …………
   a. Water turbine b. electric generator **c. solar radiation** d. electric motor
3. When warm air contains big amount of......................., the warm air loses it in the form of rain
   a. Ice b. liquid water c. sleet **d. water vapor**
4. The .... air causes the formation of many desert areas around the earth's surface
   a. Cold b. moisted **c. dry** d. dusty

2. Put (□) or (×):-

1. Duo to radiation currents, warm water moves above cold water **(×)**
2. As air is warmed by the sun, the air will fall down **(×)**
3. Wind is caused by the continuous exchange between warm air and cold air **(□)**
4. Desert are formed by the effect of moist air **(×)**

3. Write the scientific terms of each of the following:-

1. It's the main source which is responsible for warming of air and forming wind (**the sun**)
2. Large areas of land which are formed due to the effect of dry air (**desert**)

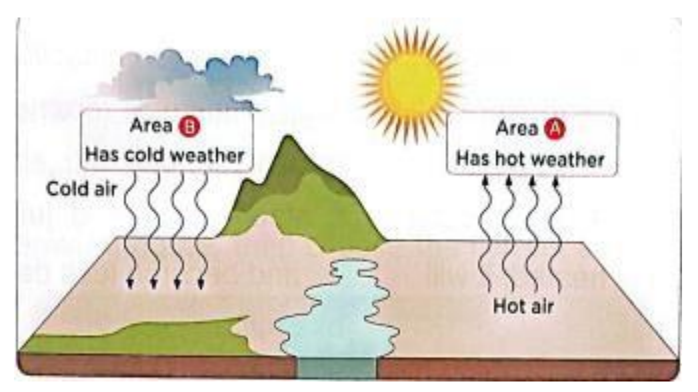
4. Give reason for:-

1. The formatting of wind is determined by the amount of solar radiation received by the earth
   Because warm air rises upward when it is heated by solar radiation and it is replaced by cooler air that flows from nearby areas.

5. What happen to……?

1. The movement of air when solar radiation heats up the air in an area
   The air will move upward in this area

6. Look at the opposite figure, then complete the following sentence using the words between brackets:-



(more - solar radiation – loses – less)

1. Air in area (A) moves upward, because it has **less** density
2. Air in area (A) becomes hot by the effect of **solar radiation**
3. Air in area (B) moves downward, because it has **more** density
4. When air in area (A) moves to area (B), it **loses** thermal energy, so it will fall down near the earth's surface

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Model Exam

1. Choose the correct answer:-

1. Water vapor that is present in air changes into ....when it hits a cold water bottle
   a. Gas state b. **liquid state** c. steam d. juice
2. The large salt lake in turkey is dried up duo to the increase in the rate of................................. process
   a. Melting b. freezing **c. evaporation** d. condensation
3. Wind helps in transporting water through the water cycle by carrying ………………
   a. Sand grains b. small rocks c. plant leaves **d. water vapor**

2. Choose from column (B) what suits it in column (A):-

(A)	(B)
1. Condensation 2. Evaporation 3. Precipitation 4. Runoff	a. Falling of snow in an area b. Formatting of fog on a road c. Formatting of a glacier in an area d. Drying of shallow lake e. Flowing of river's water into a sea

1. **b**	2. **d**	3. **a**	4. **e**

3. Put (□) or (×):-

1. As air is warmed by the sun, the air will fall down **(×)**
2. Rains fall and collect in oceans by the effect of gravity force **(□)**

3. Water comes out from stomata to the air in the form of water vapor **(□)**
4. In the water cycle, the step that follows condensation process is runoff **(×)**

4. Write the scientific terms of each of the following:-

1. The cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to the earth in the form of rain, sleet or snow (**water cycle**)
2. It is caused when air warmed by the solar radiation rises and then replaced by cooler air that flows from nearby areas (**wind**)

5. Complete the following sentence using the words blow:-

(solar - water vapor – rain – density)

1. When **water vapor** in air hits a cold glass of juice it will condense
2. The amount of **solar** energy that reaches the earth affects the rate of evaporation process in the water cycle
3. Cold water has more **density** than the warm water so it moves under the warm water
4. When warm air contains enough water vapor, it loses this water in the form of **rain**

6. Correct the underlined word:-

1. The heat of the sun transfers through the space to earth's atmosphere by **convection** (**radiation**)
2. Desert are formed by the effect of **moist** air (**dry**)
3. Flamingo migrate to the large salt lake in turkey when the weather is **very cold** there (**warm**)
4. Evaporation of water means that liquid water changes into **ice** (**water vapor**)

7. Give reason for:-

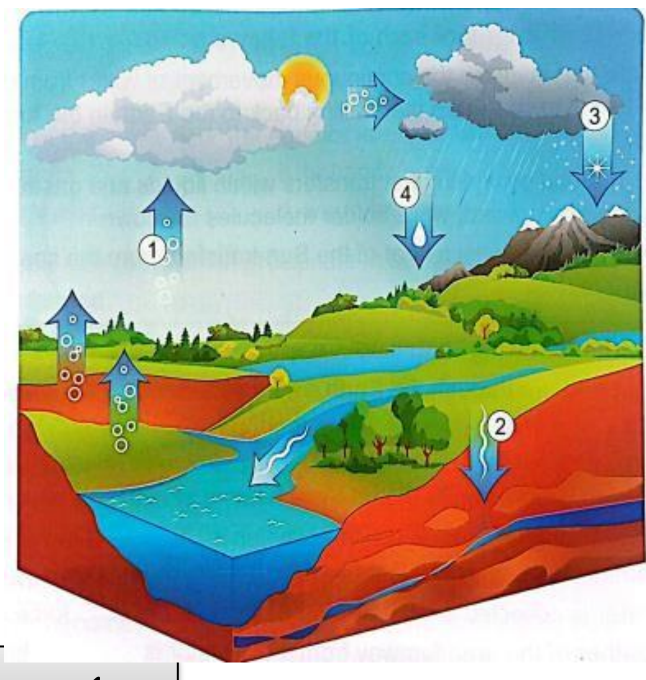
1. Formation of clouds in the sky
   Duo to condensation of water vapor into water droplets that adhere to particles of dust or smoke in the sky
2. Hot air move upward above cold air
   Duo to the effect of convection, where hot air has less density, so it rises upward, while cold air has more density, so it falls down

8. What happen ……?

1. (To) The air temperature if there is no wind on earth
   The regions around the equator become extremely hot and the poles will completely freeze
2. (If) You cover some leaves in a plant with a plastic bag then leave the plant in the direct sunlight for a while
   Water droplets will be formed inside the bag

9. Look at the opposite figure, then put (□) or (×):-

1. Arrow number (1) indicates lose of thermal energy **(×)**
2. Arrow number (2) indicates the effect of the gravitational force on water **(□)**
3. Arrow number (3) represents precipitation process **(□)**
4. Arrow number (4) indicates gain of thermal energy **(×)**



Concept 3.2

Exam on lesson 1

1. Choose the correct answer:-

1. At the top of the mountain, the atmospheric pressure is............................and the temperature is................ compared to the bottom of the mountain.
   a. **Lower - lower** b. higher – higher c. higher – lower d. lower – higher
2. A rain shadow is an area that is formed behind a……………………..
   a. Tree b. **mountain** c. building d. bridge
3. If the temperature at the bottom of a mountain is 15°C, this means it may reach………… °C at the top of this mountain.
   a. 30 b. 25 c. 20 d. **2**
4. Water vapor in the atmosphere can condense and form……………………..
   a. Air b. **clouds** c. sunlight d. wind

2. Put (□) or (×):-

1. People in desert areas face a lot of challenges in desert farming. **(□)**
2. Precipitation occurs after condensation of water vapor in the sky. **(□)**
3. The properties of the atmosphere at the top of the mountain and at its bottom are similar **(×)**
4. When the hot and humid air meet the cold and dry air, the hot air rises **(□)**

3. Write the scientific terms of each of the following:-

1. A scientist who studies the atmosphere to understand Earth's weather (**meteorologist**)
2. A side of mountain ranges at coastal regions that faces the coast (**a wet side**)

3. A side of mountain ranges at coastal regions in which the rain shadow phenomenon occurs (**a dry side**)

4. Give reason for:-

1. Sometimes people prefer to live in desert land instead of cities.
   Duo to the fast population growth in cities

5. What happen to……?

1. The atmospheric pressure, as we move up toward the top of a mountain.
   The atmospheric pressure decreases

6. complete the following sentence:-

1. The amount of rain that falls on deserts **less** than that which falls in other biomes
2. The scientist who studies the earth's atmosphere is called **meteorologist**
3. Farmers in desert may use the **solar** energy produced from the sun to power their farms
4. When the hot and humid air meet the cold and dry air, the **hot** air rises

Exam on lesson 2

1. Choose the correct answer:-

1. The barometer is used to measure……………………

a. air temperature. **b. atmospheric pressure** c. mass. d. length.

2. Heat transfers from the…………………… object to the.....................object.

a. big – small b. small – big **c. hot-cold** d. cold-hot

3. Land heats up………….. and cools down ....compared to that of water.

a. **quickly – quickly** b. slowly - slowly d. slowly – quickly c. quickly - slowly

4. If the temperature of the sand in a desert is 50°C at noon, its temperature may reach … .... °C at night.

a. **20** b. 60 c. 70 d. 80

2. Put (□) or (×):-

1. The sand absorbs heat slower than water during daytime. **(×)**
2. Sand cools down in a shorter time than sea water during nighttime. **(□)**
3. Mapping data allows meteorologists to represent data about weather conditions. **(□)**

3. Write the scientific terms of each of the following:

1. A scientist who studies the Earth's atmosphere and forecasts the weather. (**meteorology**)
2. A device used to measure temperature. (**thermometer**)
3. It is the weight of the air above an area. (**atmospheric pressure**)

4. Give reason for:-

1. At noon, we may not be able to stand barefoot on the sand of a beach in summer, but we can swim in the sea water
   Because sand is heated up faster than water

5. What happen to……?

1. The temperature of a desert sand at night
   The temperature of water will increase

6. Look at the following picture that shows the using of concrete in regions with hot summers and cold winters, then choose the correct answer:-

1. The temperature inside the building is regulated by absorbing .... energy during the day and releasing it at night

a. Chemical b. sound

c. **thermal** d. magnetic

2. When sunlight falls on the concrete its temperature ………………………

a. **Increases** b. don't change

c. decreases slowly d. decreases quick

Exam on lesson 3

1. Choose the correct answer:-

1. Convection is a way of transferring of heat in liquids and gases due to the difference in……………. and…………………..
   a. mass color b. shape volume. c. **temperature - density.** d. color temperature.
2. Heat transfers by convection in……………… and……………..
   a. **liquids gases**. b. solids liquids. c. solids - gases. d. liquids space.
3. Convection currents in the atmosphere are controlled by………………
   a. precipitation. b. moon's rotation.
   c. **the energy from the Sun.** d. Earth's rotation.
4. Heat is transferred through the atmosphere by……………………..…….
   a. **convection**. b. conduction. c. reflection. d. absorption.
5. When air is heated, its................................changes.
   a. Mass b. smell c. color d. **density**

2. Put (□) or (×):-

1. Cold air has more density than hot air. **(□)**
2. By increasing the temperature of air, its density decreases. **(□)**
3. When the air is cooled, it rises up. **(×)**
4. Hot air rises above colder air. **(□)**

5. Transfer of heat by convection occurs in solids, liquids and gases. (×)

3. Choose from column (B) what suits it in column (A):-

(A)	(B)
1. Anemometer 2. Weather radar 3. Rain gauge	a. Measuring the atmospheric pressure b. Measuring the wind speed c. Measuring the intensity of precipitation d. Measuring the amount of rain

1. **b**	2. **c**	3. **d**

4. Give reason for:-

1. When air is heated, it expands.
   Because the molecules of air move away from each other

5. What happen to……?

1. We boil water in a pot on the stove. (Concerning the movement of hot water and cold water)
   Hot water moves up and cold water falls down

Exam on lesson 4

1. Choose the correct answer:-

1. Extreme weather conditions include all the following, except……………………
   a. drought b. flooding. c. sandstorms. **d. sunrise.**
2. The increase in the amount of rain may cause…………..
   a. flooding. b. drought. c. sandstorm. d. dust storm,
3. Drought affects all the following, except…………………………
   a. people. b. plants. **c. buildings**. d. animals.
4. If a driver's visibility range in sunny weather is up to 5 km, the visibility range may reach… .... in stormy weather.
   a. 1 Km or less b. 6 Km c. 8 Km d. 10 Km

2. Put (□) or (×):-

1. Heavy rain may cause drought. (×)
2. Although flooding is harmful, it also has some benefits. (□)
3. Sandstorms blow up from a dry area such as seas and oceans. (×)
4. Floods may cause death of people and animals. (□)
5. Dust storms have harmful effects on the plane engines. (□)

3. Write the scientific terms of each of the following:-

a. A phenomenon in which the condensed water vapor falls on the Earth's surface in the form of rain, snow, sleet or hail. (**precipitation**)

b. A phenomenon in which very strong winds blow up dust that reduces the visibility during driving cars. (**dust storm**)

4. Give reason for:-

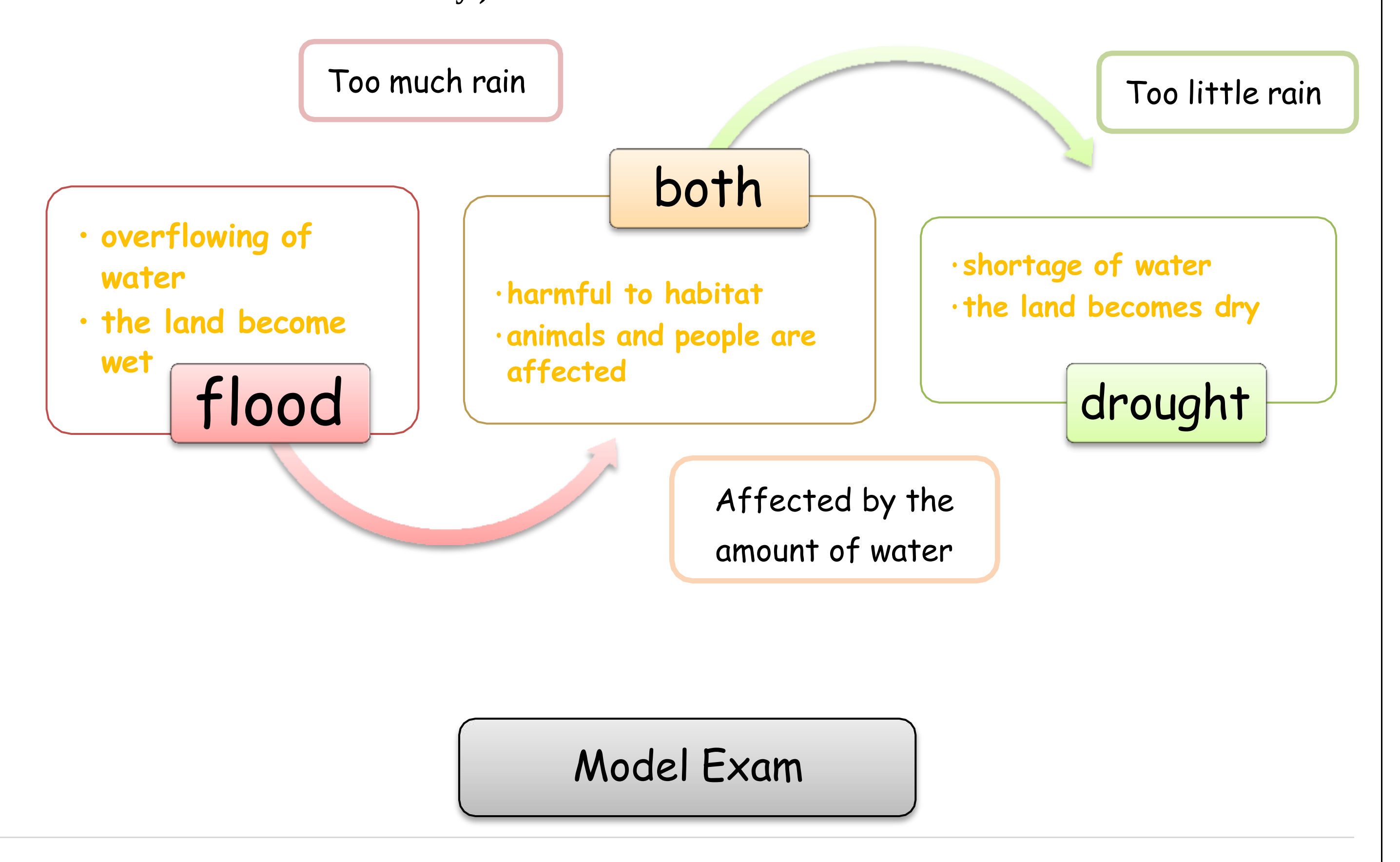
1. Floods have some benefits.
   Because some ecosystems depend on floods such as ecosystems along the Nile
2. Sandstorms have harmful effects on human health
   Because sandstorms harm the human eyes and respiratory system

5. What happen to……?

1. Buildings when they are subjected to strong floods.
   They may be damaged by moving or breaking them
2. Solar panels when dust accumulates on them.
   Solar panels stop generating energy

6. Classify the following extreme weather conditions in venn diagram below using the sentences between brackets:-

(harmful to habitat – overflow of water – shortage of water – animals and humans are affected – the land becomes wet – the land becomes dry)



Model Exam

1. Choose the correct answer:-

1. The density of cold dry air is ……… that of hot humid air
   a. **More than** b. equal to c. less than d, similar to
2. Heat transfers from the ……………… object to the .... object
   a. Big – small b. **hot – cold** c. small – big d. cold – hot
3. When air is heated, its .... changes
   a. Smell b. color c. **density** d. mass
4. Drought affects the following, except ………………………
   a. Animals b. plants c. people d. **buildings**
5. If a driver's visibility range in sunny weather is up to 5 km, the visibility range may reach… .... in stormy weather.
   a. **1 Km or less** b. 6 Km c. 8 Km d. 10 Km
6. Heat is transferred through the atmosphere by……………………..…….
   b. **convection.** b. conduction. c. reflection. d. absorption.

2. Choose from column (B) what suits it in column (A):-

(A)	(B)
1. Anemometer 2. Weather radar 3. Rain gauge	a. Measuring the atmospheric pressure b. Measuring the wind speed c. Measuring the intensity of precipitation d. Measuring the amount of rain

1. **b**	2. **c**	3. **d**

3. Put (□) or (×):-

1. When rain doesn't fall, soil may dry and plants may die **(□)**
2. By increasing the temperature of air, its density increases **(×)**
3. Sand cools down in a shorter time than sea water during nighttime **(□)**
4. The properties of the atmosphere at the top of the mountain and at its bottom are similar **(×)**

4. Write the scientific terms of each of the following:-

1. A side of mountains ranges of coastal regions that faces the coast (**wet side**)
2. A device used to measure atmospheric pressure (**barometer**)
3. It is the weight of the air above an area (**atmospheric pressure**)
4. A phenomenon in which very strong winds blow up dust that reduce the visibility during driving cars (**dust storm**)

5. Complete the following sentence:-

(flooding – drought – decrease – increase – dry- wet)

1. Extreme hot temperatures may causes **drought**
2. Heavy rain may cause **flooding**
3. Sandstorms **increase** the chances of car accidents
4. Dust storms **decrease** the water quality in irrigation canal
5. Floods result in formation of **wet** lands
6. Strong winds may blow up sand from a **dry** area such as deserts

6. Give reason for:-

1. Extreme weather became more danger in many places around the world
   Duo to global climate change
2. Formatting of fog in the early morning
   Duo to condensation of water vapor that found in the air

7. What happen to……?

1. The atmospheric pressure, as we move up toward the top of a mountain
   Atmospheric pressure will decrease
2. Air density, as we move down toward the bottom of a mountain
   Air density will increase

8. The following diagram shows the steps of rain shadow phenomenon, complete the following steps using the words below:-

(rises – descends – cools – warms – condenses)

humid air belows against a mountain

air (**rises**), then it (**cools**)

air (**condenses**), then precipitation occures

air (**descends**), then it (**warms**)

air dries the land

Science – grade 6 - February Revision

مراجعة شهر فبراير – مادة الساينس – الصف السادس الابتدائي

Unit 3 – concept 1 – questions & answers

Lesson 1

Choose the correct answer:

1. The large salt lake in Turkey is dried up due to the increase in the rate of ………………. process.
   a) melting b) freezing c) evaporation d) condensation

2. Increasing and decreasing of water level in some lakes is due to the transfer of …………….. through the water cycle.
   a) rocks b) energy c) work d) wind

3. In winter, rain falls due to …………….. process.
   a) condensation c) collection
   b) evaporation d) precipitation

4. When water runs through a river then into a sea, this step is called ……………….
   a) runoff c) precipitation
   b) condensation d) evaporation

5. The distribution of …………….. energy on the Earth's surface plays an important role in evaporation process in the water cycle.
   a) electrical b) solar c) sound d) kinetic

6. All the following are considered as the main processes in transferring water through water reservoirs, except …………….
   a) condensation c) evaporation
   b) collection d) precipitation

7. Moderate regions are areas in which the evaporation process is ………….
   a) the greatest b) the smallest c) moderate d) absent

Choose from column (B) what suits it in column (A):

(A)	(B)
1) Condensation 2) Evaporation 3) Precipitation 4) Runoff	a. Falling of snow in an area. b. Formation of fog on a road. c. Formation of a glacier in an area. d. Drying of a shallow lake. e. Flowing of river's water into a sea.

Put (√) or (X):

1) Drying up of water in the large salt lake in Turkey is due to condensation process. ( )
2) Transferring of energy in the water cycle causes increasing and decreasing of water level in some lakes. ( )
3) Flamingos migrate to the large salt lake in Turkey when the weather is very cold there. ( )
4) States of water change when water gains or loses energy. ( )
5) In the water cycle, the step that follows condensation process is runoff. ( )
6) Hottest regions are regions in which the evaporation process is the greatest. ( )
7) Falling of hail in coolest regions is an example of evaporation process. ( )

Write the scientific term of each of the following:

1- The main source of energy which affects the water cycle. (......................................)

2- It is the process in which water falls on Earth in the form of rain, sleet, snow or hail. (.....................................)

3- It is the process in which matter changes from liquid state to gas state. (.............................)

4- It is the process in which matter changes from gas state to liquid state. (..............................)

5- It is the step in which water flows along the Earth's surface into the river and then into the ocean or sea. (.................................)

6- It is the step in which rainwater falling on the Earth's surface is collected in different water bodies. (..................................)

<u>Complete the following sentences:</u>

1. Flamingos migrate to the large salt lake in Turkey when the weather becomes .... , and they are feed on .... which are found in this lake.
2. Formation of fog is due to the .... of water vapor on a field in early morning.
3. The three main processes which are responsible for movement of water through the water reservoirs on the Earth are evaporation, ... and ....
4. Energy of the sun causes the changing of liquid water into .... by evaporation process.
5. The amount of .... energy that reaches the Earth affects the rate of evaporation process in the water cycle.

<u>Give reasons for:</u>

- Drying up of the large salt lake in Turkey in summer season.

....

- Formation of fog in the early morning.

....

- Changing of water from one state to another.

....

<u>What happens to ...?</u>

❖ The level of water in a lake when the rate of evaporation increases.

……………………………………………………………………………………………………….

❖ The snow when sunlight falls on it.

……………………………………………………………………………………………………….

Look at the opposite figure, then complete the following sentences:

1- Areas ………. and ………. are considered as hottest areas.
2- Areas ………. and ………. are considered as moderate areas.
3- Areas ………. and ………. are considered as coolest areas.

Lesson 2

Choose the correct answer:

1. Melting of snow at the two poles, is due to the thermal energy that comes from the …………….
   a) wind b) moon c) sun d) electricity

2. Leakage of water into groundwater reservoirs is due to the action of ……………..
   a) condensation b) gravity c) precipitation d) evaporation

3. All the following are examples of water reservoirs on the Earth, except …………….
   a) seas b) glaciers c) moon d) living organisms

4. Movement of air can change the state of water from …………. state to …………….. state by evaporation process.
   a) gas – liquid c) solid - gas
   b) liquid – gas d) solid – liquid

5. Both of ………………. and …………………. processes happen due to the decrease of thermal energy.
   a) melting – freezing   c) freezing – condensation
   b) melting – condensation   d) melting – evaporation

6. The sun heats the water of seas and oceans and this leads to occurrence of ………………. process.
   a) freezing   b) melting   c) evaporation   d) condensation

7. The form of evaporation process that takes place from the leaves of plants is called ……………….
   a) transpiration   b) collection   c) melting   d) freezing

8. About 10% of the water vapor in air comes from transpiration of ……………………..
   a) humans   b) rocks   c) animals   d) plants

9. Water vapor that is present in air changes into ……………. when it hits a cold water bottle.
   a) gas state   b) liquid water   c) steam   d) juice

10. Clouds are formed due to ………………. process.
   a) melting   b) collection   c) condensation   d) freezing

11. The form of water that is found in air and sometimes we cannot see it is the ………………
   a) liquid water   b) water vapor   c) ice   d) snow

12. The condensed water vapor in clouds returns back to the Earth's surface in the form of all the following, <u>except</u> ……………….
   a) water vapor   b) rain   c) snow   d) sleet

13. When water vapor rises into the atmosphere, it cools and changes into …………………. by condensation process.
   a) glaciers   b) snow   c) groundwater   d) clouds

14. When the water in clouds becomes too heavy, it falls on the ground by a process called ……………….

a) evaporation c) condensation

b) precipitation d) collection

<u>Put (√) or (X):</u>

1) The water cycle is a movement of water through different water reservoirs on the Earth. ( )
2) Water reservoirs on the Earth include oceans and seas only. ( )
3) The two factors which control the movement of water in the water cycle are gravity force and solar energy. ( )
4) Glaciers move from the top of mountains to the bottom of mountains due to the effect of gravity. ( )
5) The motion of air from one place to another leads to changing of water vapor into water in the air. ( )
6) Melting and transpiration processes only occur by cooling. ( )
7) When the sun heats the water in a river, the water changes into gas state. ( )
8) Water comes out from stomata to the air in the form of water vapor. ( )
9) You can see transpiration process when you set a plant its leaves covered with a plastic bag in the sunlight. ( )
10) As a result of low temperature, water returns back into water vapor. ( )
11) Clouds consist of tiny water droplets that have condensed out of the air. ( )
12) There is no water found in the air around us. ( )
13) Evaporation of water means that liquid water changes into ice. ( )
14) When water vapor cools in the sky, it forms clouds. ( )
15) Clouds are made up of millions of tiny water droplets. ( )

Write the scientific term of each of the following:

1- They are the places of storing water on the Earth.
(…………………………………………….)

2- The force which causes moving down of water from higher places to lower places on the Earth. (……………………….…)

3- It is a form of evaporation that takes place through the stomata which are found in plant leaves. (………………………………)

4- It is the process which helps in formation of clouds in the sky.
(…………………………………..)

Complete the following sentences:

1. The movement of water through different water reservoirs on the Earth is called the ………………………………
2. The water starts to move or change its way of movement when a ……………………. affects it.
3. The force which causes moving down of water from the top of a mountain is called ……………………
4. Transpiration is a form of ……………… process, while condensation takes place by the decrease in the ……………………. energy.
5. Evaporation causes changing of the water in rivers and seas into ……………………………..
6. Water vapor comes out from plant leaves through the ……………………….
7. When ………………. in air hits a cold glass of juice, it will condense.
8. Water vapor condenses in the sky to form ……………………..
9. Drying up of a shallow pond in summer is an example of ……………………….. process.
10. Clouds are made up of millions of tiny ……………………. droplets.
11. When the water droplets in the clouds become too heavy, it causes ……………………. process.

Give reasons for:

- Moving down of glaciers from the top of a mountain to its foot.

……

- Changing of some amount of water in water bodies into water vapor.

……

- About 10% of water vapor in air comes from plants.

……

- Formation of clouds in the sky.

……

What happens if …?

❖ Water of seas and oceans gains big amount of thermal energy.

……

❖ You cover some leaves in a plant with a plastic bag then put this plant in the direct sunlight for awhile.

……

❖ Moist air touches a cold bottle of water.

……

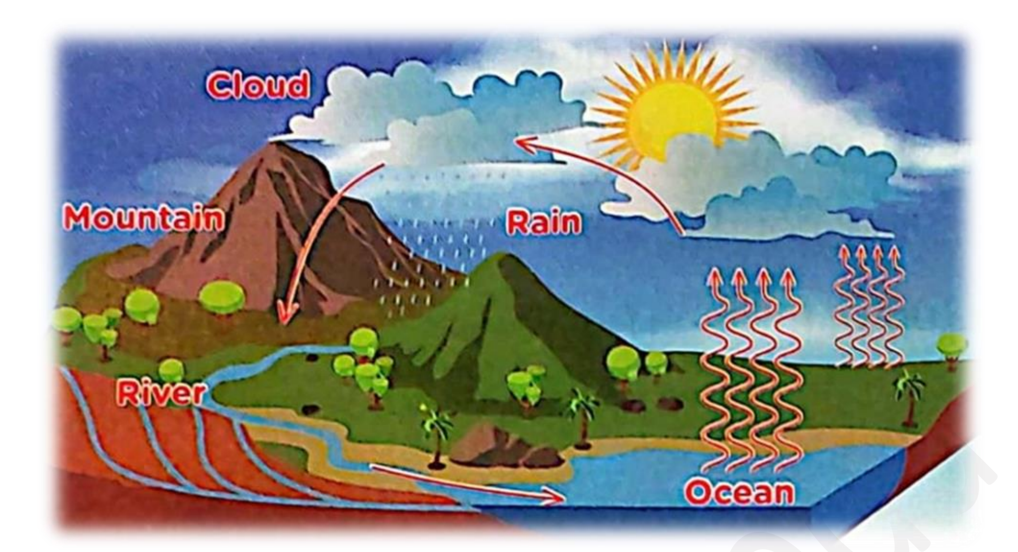
❖ Water vapor in air condenses in the sky.

……

❖ The water droplets in the clouds become very heavy.

……

Look at the following figure, then answer the questions below:



- This picture shows the ……………………… (***Complete***).

Choose the correct answer:

- The rain falling on the mountain is a form of …………………..
  a) cloud b) precipitation c) evaporation d) condensation

- The rain on the mountain runs into the ……………… and goes to the ocean.
  a) sun b) river c) ocean d) groundwater

- When the sun heats up the water in the ocean, it will ....
  a) run off b) condense c) precipitate d) evaporate

Lesson 3

Choose the correct answer:

1. Gathering the water of rains to form streams, rivers or lakes, is called …………………
   a) precipitation b) evaporation c) collection d) condensation

2. Due to convection, ……………… air moves upward above …………. air.
   a) cold-hot b) hot – cold c) cold - warm d) warm - hot

3. The air which is found in the atmosphere heats up by the help of the ………………..
   a) moon b) heater c) gravity d) sun

4. When a liquid is heated, it will …………….. and become less dense and ……………..
   a) expand – heavier
   b) contract – lighter
   c) expand – lighter
   d) contract – heavier

5. Water in oceans changes into …………….. when water gains thermal energy.
   a) liquid water b) water vapor c) snow d) sleet

6. Fresh water stored underground in the form of groundwater by the effect of …………………….
   a) condensation b) electricity c) gravity d) evaporation

7. The weather of the areas near the equator is ………………..
   a) hot and humid
   b) hot and snowy
   c) warm and humid
   d) warm and snowy

8. Due to the very little rains which precipitate in some areas on Earth, large areas of ……………………… are formed.
   a) forests b) seas c) oceans d) deserts

9. When the sun rays fall semi-inclined on Earth's surface, it is distributed on a large area giving ……………….. effect of heat and the weather becomes …………………….
   a) high – warm b) low - warm c) high – cold d) low - cold

Choose from column (B) what suits it in column (A):

(A)	(B)
1) The weather becomes hot when 2) The weather becomes warm when 3) The weather becomes very cold when	a) the sun rays fall semi-inclined on Earth's surface. b) the sun rays fall horizontally on Earth's surface. c) the sun rays fall perpendicular on Earth's surface. d) the sun rays fall very inclined on Earth's surface.

Put (√) or (X):

1) All living organisms on the Earth depend on water to survive. ( )
2) Falling of sleet in an area is an example of precipitation process. ( )
3) Convection causes the movement of low density air above the high density air. ( )
4) Convection currents in Earth's atmosphere help in determining the regional climate. ( )
5) The heat of the sun transfers through space to Earth's atmosphere by convection. ( )
6) When freshwater changes into snow and ice, this means that fresh water gains thermal energy. ( )
7) Rains fall and collect in oceans by the effect of gravity force. ( )
8) There is a very little rains in desert areas. ( )
9) The weather in the area near the equator is very cold due to falling of sun rays' perpendicular on Earth's surface. ( )
10) When the sun rays fall semi-inclined on Earth's surface, they will distribute on a large area giving low effect of heat. ( )

Write the scientific term of each of the following:

1- The cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to the Earth in the form of rain, sleet or snow. (………………………………..)

2- It is the method by which heat transfers within liquids and gases, where hot molecules rise upward, while colder molecules fall down. (…………………………………)

3- It is the method by which heat of the sun transfers from the space to Earth's atmosphere. (…………………………………)

Complete the following sentences:

1. Heat can transfer through the Earth's atmosphere due to the effect of ………………………. currents.
2. The difference in the …………………….. and …………………. in water of oceans and atmosphere occurs due to the unequal heating of land and oceans.
3. Fresh water changes into water vapor when it …………………. thermal energy, while fresh water changes into ……………………. when it loses thermal energy.
4. Rainwater is collected in oceans by the effect of ………………….. force.
5. The weather of the area faraway from the equator is ……………………. because the sun rays fall ……………… on the Earth's surface at this area.
6. Cold water has more …………………. than warm water, so it moves under the warm water.
7. The sun produces the energy which causes the movement of ……………………. currents that produce ocean currents and ……………………….
8. Due to convection currents, hot air moves ………………….. cold air.

Give reasons for:

- Hot air moves upward above cold air.

....

- The weather in the area near the equator is hot.

....

- The effect of heat is low in the area at the north and south of the equator.

....

What happens to ...?

- The weather if the sun rays fall very inclined on an area.

....

- The density of air if the cold air is warmed by the effect of solar energy.

....

Look at the following figure, then put (√) or (x):

- Arrow number (1) indicates loss of thermal energy. ( )
- Arrow number (2) indicates the effect of the gravitational force on water. ( )
- Arrow number (3) represents precipitation process. ( )
- Arrow number (4) indicates gain of thermal energy. ( )



Lesson 4

Choose the correct answer:

1. During washing your hands, water falls down from the water tap toward your hands by the effect of …………………
   a) condensation b) freezing c) gravity d) precipitation

2. All the following are examples of convection currents effect, except ………………..
   a) cold air moves above hot air
   b) very hot air moves above warm air
   c) hot water moves above cold water
   d) warm water moves above cold water

3. Wind is produced by the help of ………………….
   a) water turbine c) solar radiation
   b) electric generator d) electric motor

4. Wind is formed when ……………….. rises and replaced by ……………… that flows from nearby areas.
   a) warm air - cold air c) cold water - warm water
   b) warm water - cold water d) cold air - warm air

5. When warm air contains big amount of ……………., the warm air loses it in the form of rain.
   a) ice b) liquid water c) sleet d) water vapor

6. When warm air is cooled, it will move …………………..
   a) upward b) downward c) forward d) backward

7. The …………. air causes the formation of many desert areas around the Earth's surface.
   a) cold b) moisted c) dry d) dusty

8. Wind helps in transporting water through the water cycle by carrying ……………….

a) sand grains b) small rocks c) plant leaves d) water vapor

Put (√) or (X):

1) Solar energy is the main energy which the causes the movement of convection currents in atmosphere and oceans. ( )
2) Due to radiation currents, warm water moves above cold water. ( )
3) The direction of wind is determined by the amount of solar radiation received by the Earth. ( )
4) As air is warmed by the sun, the air will fall down. ( )
5) Wind is caused by the continuous exchange between warm air and cold air. ( )
6) When the warm air flows away from its place to another one, it will cool and move downward. ( )
7) Deserts are formed by the effect of moist air. ( )
8) Unequal heating of the Earth between the poles and the equator generates wind. ( )

Write the scientific term of each of the following:

1- It is caused when air warmed by the solar radiation rises and then replaced by cooler air that flows from nearby areas. (………………………………..)

2- It is the main source which is responsible for warming of air and forming wind. (……………………………….)

3- Large areas of land which are formed due to the effect of dry air. (…………………………)

Complete the following sentences using the words below:

(**rotation - deserts - direction - upward - solar radiation - winds - rain – downward**)

1. The global wind system of the Earth consists of …………………….. that blow in a constant ………………… over long periods of time.
2. The direction of wind is determined by the amount of ………………………. received by the Earth and ………………… of the Earth.
3. When warm air contains enough water vapor, it loses this water in the form of …………………..
4. When warm air is cooled, it will move ………………… , while cold air moves …………………… when it is warmed.
5. Dry air causes the formation of large areas of ………………….. around the Earth's surface.

Give reasons for:

- On adding warm water to cold water without shaking, the warm water stays above cold water without mixing.

……………………………………………………………………………………………………….

- The formation of wind is determined by the amount of solar radiation received by the Earth.

……………………………………………………………………………………………………….

What happens to …?

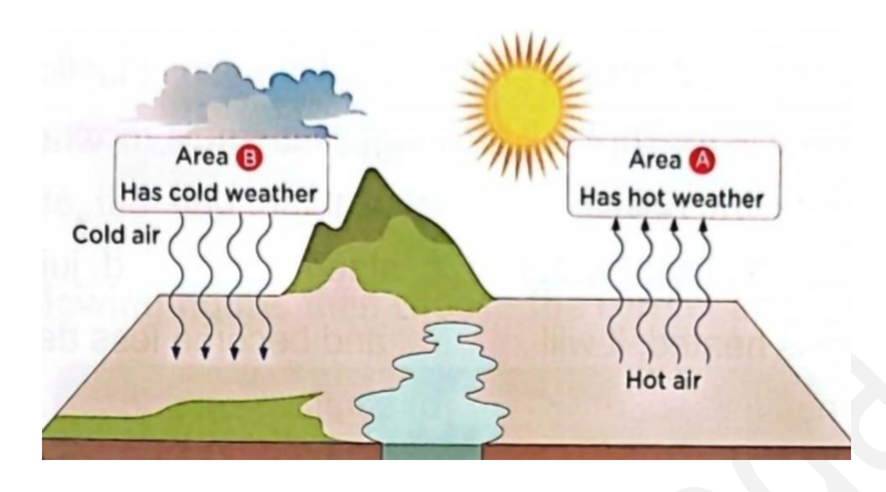
- ❖ The air temperature if there is no wind on Earth.

……………………………………………………………………………………………………….

- ❖ The movement of air when solar radiation heats up the air in an area.

……………………………………………………………………………………………………….

Look at the following figure, then complete the following sentences using the words between brackets:



(**more - solar radiation - loses - less**)

- Air in area (A) moves upward, because it has ……………….. density.
- Air in area (A) becomes hot by the effect of ……………………….
- Air in area (B) moves downward, because it has …………………… density.
- When air in area (A) moves to area (B), it ……………… thermal energy, so it will fall down near the Earth's surface.

Answers

Lesson 1

Choose:

1. **c** 2. **b** 3. **d** 4. **a** 5. **b** 6. **b** 7. **c**

Choose:

1. **b** 2. **d** 3. **a** 4. **E**

Put (√) or (X):

1) **X** 2) **√** 3) **X** 4) **√** 5) **X** 6) **√** 7) **X**

Write the scientific term:

1- **The sun** 4- **Condensation process**

2- Precipitation process
3- Evaporation process
5- Runoff
6- Collection

Complete:

1. warm – algae
2. condensation
3. condensation – precipitation
4. water vapor
5. solar

Give reasons for:

- Due to the increase in the evaporation of the lake water.
- Due to condensation of water vapor that is found in the air.
- Due to gaining and losing of thermal energy.

What happens to ...?

- The level of water will decrease.
- The snow will melt and change into liquid water.

Look then complete:

1- C – D 2- B – E 3- A - F

Lesson 2

Choose:

1. c 2. b 3. c 4. b 5. c 6. c 7. a 8. d
9. b 10. c 11. b 12. a 13. d 14. B

Put (√) or (X):

1) √ 2) X 3) √ 4) √ 5) √ 6) X 7) √ 8) √
9) √ 10) X 11) √ 12) X 13) X 14) √ 15) √

Write the scientific term:

1- Water reservoirs
2- Gravity
3- transpiration process
4- condensation process

Complete:

1. Water cycle
2. Force
3. Gravity
7. Water vapor
8. clouds
9. evaporation

4. **Evaporation – thermal**
5. **Water vapor**
6. **Stomata**

10. **water**
11. **precipitation**

Give reasons for:

- **Due to the effect of gravity on glaciers.**
- **Due to evaporation process, as a result of gaining of thermal energy.**
- **Due to transpiration process which happens by plants.**
- **Due to condensation of water vapor into water droplets that adhere to particles of dust or smoke in the air.**

What happens to …?

- **Water of seas and oceans changes into water vapor in air.**
- **Water droplets will be formed inside the bag.**
- **Water vapor which is found in air condenses on the surface of the bottle.**
- **Clouds are formed in the sky.**
- **Water droplets fall in the form of rain.**

Look then answer:

- **Water cycle**

Choose: 1. **b** 2. **b** 3. **d**

Lesson 3

Choose:

1. **c** 2. **b** 3. **d** 4. **c** 5. **b** 6. **c** 7. **a** 8. **d** 9. **b**

Choose:

1. **c** 2. **a** 3. **d**

Put (√) or (X):

1) **√** 2) **√** 3) **√** 4) **√** 5) **X** 6) **X** 7) **√** 8) **√**
10) **X** 11) **√**

Write the scientific term:

1- **The water cycle**   2- **convection**   3- **radiation**

Complete:

1. **convection**
2. **temperature – densities**
3. **gains – ice**
4. **gravity**
5. **very cold – very inclined**
6. **density**
7. **convection – winds**
8. **above**

What happens to ...?

- **The weather of this area Becomes very cold.**
- **The density of the air will Decrease (becomes low).**

Give reasons for:

- **Due to the effect of convection, where hot air has less density, so it rises upward, while cold air has more density, so it falls down.**
- **Because the sun rays fall perpendicular on Earth's surface giving high effect of heat.**
- **Because the sun rays fall semi-inclined on Earth's surface of these areas, so the weather is**

Look then put (√) or (X):   1. **X**   2. **√**   3. **√**   4. **X**

Lesson 4

Choose:

1. **c**   2. **a**   3. **c**   4. **a**   5. **d**   6. **b**   7. **c**   8. **D**

Put (√) or (X):

1) **√**   2) **X**   3) **√**   4) **X**   5) **√**   6) **√**   7) **X**   8) **√**

Write the scientific term:

1- **Wind**   2- **the sun**   3- **deserts**

Complete:

1. **winds – direction**

4. **downward – upward**

2. **solar radiation – rotation**

3. **rain**

5. **deserts**

Give reasons for:

- **Due to the effect of convection, as warm water has less density than cold water, so warm water will stay above cold water.**
- **Because warm air rises upward when it is heated by solar radiation, and it is replaced by cooler air that flows from nearby areas.**

What happens to ...?

- **The regions around the equator become extremely hot and the poles will completely freeze.**
- **The air will move upward in this area.**

Look then complete:

- less
- solar radiation
- more
- loses

Primary 6

Question 1

Choose the correct answer:

1.The distribution of.........energy on the Earth's surface plays an important role in evaporation process in the water cycle.

a. electrical b. solar c. sound d. kinetic

2.Water vapor that is present in air changes into...........when it hits a cold-water bottle.

a. gas state b. liquid water c. steam d. juice

3.When a liquid is heated, it will.......... and become less dense and………...

a. expand-heavier. b. contract-lighter.
c. expand-lighter. d. contract-heavier.

4.The large Salt Lake in Turkey is dried up due to the increase in the rate of …………process.

a. melting b. freezing c. evaporation d. condensation

5.Wind helps in transporting water through the water cycle by carrying………

a. sand grains. b. small rocks. c. plant leaves. d. water vapor.

6.Increasing and decreasing of water level in some lakes is due to the transfer of ………..through the water cycle.

a. rocks b. energy c. work d. wind

7.In winter, rain falls due to..........process.

a. condensation b. evaporation
c. collection d. precipitation

8.When water runs through a river then into a sea, this step is called. ....

a. runoff. b. condensation. c. precipitation. d. evaporation.

9. All the following are considered as the main processes in transferring water through water reservoirs, except.........

a. condensation. b. collection.
c. evaporation. d. precipitation.

10. Moderate regions are areas in which the evaporation process is…….

a. the greatest. b. the smallest. c. moderate. d. absent.

11. Melting of snow at the two poles, is due to the thermal energy that comes from the.........

a. wind. b. moon. c. Sun. d. electricity.

12. Leakage of water into groundwater reservoirs is due to the action of………

a. condensation. b. gravity. c. precipitation. d. evaporation.

13. The rain on the mountain runs into the……and goes to the ocean.

a. Sun b. river c. ocean d. groundwater

14. When the Sun heats up the water in the ocean, it will......

a. run off. b. condense. c. precipitate. d. evaporate.

15. Gathering the water of rains to form streams, rivers or lakes, is called ……...

a. precipitation. b. evaporation. c. collection. d. condensation.

16. Due to convection, ...air moves upward above...........air.

a. cold-hot b. hot-cold c. cold-warm d. warm-hot

17. The air which is found in the atmosphere heats up by the help of the…….

a. moon. b. heater. c. gravity. d. Sun.

18. During washing your hands, water falls down from the water tap toward your hands by the effect of.........

a. condensation. b. freezing.
c. gravity. d. precipitation.

19. All the following are examples of convection currents effect, except….

a. cold air moves above hot air. b. very hot air moves above warm air.
c. hot water moves above cold water. d. warm water moves above cold water.

20. Wind is produced by the help of.........

a. water turbine. b. electric generator.
c. solar radiation. d. electric motor.

21. Wind is formed when........rises and replaced by……….. that flows from nearby areas.

a. warm air -cold air b. warm water- cold water
c. cold water-warm water d. cold air - warm air

22. When warm air contains big amount of........, the warm air loses it in the form of rain.

a. ice b. liquid water c. sleet d. water vapor

23. When warm air is cooled, it will move…

a. upward. b. downward. c. forward. d. backward.

24. The ………air causes the formation of many desert areas around the Earth's surface.

a. cold b. moisted C. dry d. dusty

25. Wind helps in transporting water through the water cycle by carrying ………

a. sand grains. b. small rocks. c. plant leaves. d. water vapor.

26. Fresh water stored underground in the form of groundwater by the effect of …………..

a. condensation. b. electricity. c. gravity. d. evaporation.

27. The weather of the areas near the equator is.........

a. hot and humid. b. hot and snowy.
c. warm and humid. d. warm and snowy.

28. Due to the very little rains which precipitate in some areas on Earth, large areas of..........are formed.

a. forests b. seas c. oceans d. deserts

29.When the sun rays fall semi-inclined on Earth's surface, it is distributed on a large area giving......... effect of heat and the weather becomes………..

a. high-warm. b. low-warm. c. high-cold. d. low-cold.

30.All the following are examples of water reservoirs on the Earth, except ......

a. seas. b. glaciers. c. moon. d. living organisms.

31.Clouds are formed due to......... process.

a. melting b. collection c. condensation d. freezing

32.The form of water that is found in air and sometimes we cannot see it is the………

a. liquid water. b. water vapor. c. ice. d. snow.

33.The condensed water vapor in clouds returns back to the Earth's surface in the form of all the following, except........

a. water vapor. b. rain. c. snow. d. sleet.

34.When the water in clouds becomes too heavy, it falls on the ground by a process called. ....

a. evaporation. b. precipitation. c. condensation. d. collection.

35.Movement of air can change the state of water from..........state to ……….. state by evaporation process.

a. gas-liquid b. liquid-gas c. solid-gas d. solid-liquid

36.Both of..................and……………. processes happen due to the decrease of thermal energy.

a. melting-freezing b. melting - condensation
c. freezing-condensation d. melting-evaporation

37.The Sun heats the water of seas and oceans and this leads to occurrence of …………. process.

a. freezing b. melting c. evaporation d. condensation

38.The form of evaporation process that takes place from the leaves of plants is called…………

a. transpiration. b. collection. c. melting. d. freezing.

39.About 10 % of the water vapor in air comes from transpiration of………….

a. humans. b. rocks. c. animals. d. plants.

40.Water vapor that is present in air changes into …….. when it hits a cold-water bottle.

a. gas state b. liquid water c. steam d. juice

Question 2

Choose from (A) what suits it in (B):

1.

(A)	(B)
1.Condensation 2. Evaporation 3. Precipitation 4.Runoff	a. Falling of snow in an area. b. Formation of fog on a road. c. Formation of a glacier in an area. d. Drying of a shallow lake. e. Flowing of river's water into a sea.

2.

(A)	(B)
1. The weather becomes hot when 2. The weather becomes warm when 3.The weather becomes very cold when	a. the sun rays fall semi-inclined on Earth's surface. b. the sun rays fall horizontally on Earth's surface. c. the sun rays fall perpendicular on Earth's surface. d. the sun rays fall very inclined on Earth's surface.

Question 3

Put (√) or (X):

1.As air is warmed by the Sun, the air will fall down.

2. All living organisms on the Earth depend on water to survive.
3. Falling of sleet in an area is an example of precipitation process.
4. Convection causes the movement of low-density air above the high-density air.
5. The heat of the Sun transfers through space to Earth's atmosphere by convection.
6. When fresh water changes into snow and ice, this means that fresh water gains thermal energy.
7. Rains fall and collect in oceans by the effect of gravity force.
8. There is a very little rains in desert areas.
9. The weather in the area near the equator is very cold due to falling of sun rays perpendicular on Earth's surface.
10. The water cycle is a movement of water through different water reservoirs on the Earth.
11. Water reservoirs on the Earth include oceans and seas only.
12. The two factors which control the movement of water in the water cycle are gravity force and solar energy.
13. Glaciers move from the top of mountains to the bottom of mountains due to the effect of gravity.
14. The motion of air from one place to other leads to changing of water vapor into water in the air.
15. There is no water found in the air around us.
16. When water vapor cools in the sky, it forms clouds.
17. Clouds are made up of millions of tiny water droplets.
18. Flamingos migrate to the large Salt Lake in Turkey when the weather is very cold there.
19. Due to radiation currents, warm water moves above cold water.
20. The direction of wind is determined by the amount of solar radiation received by the Earth.

21. Wind is caused by the continuous exchange between warm air and cold air.
22. Deserts are formed by the effect of moist air.
23. Unequal heating of the Earth between the poles and the equator generates wind.
24. In the water cycle, the step that follows condensation process is runoff.
25. Water comes out from stomata to the air in the form of water vapor.
26. You can see transpiration process when you set a plant its leaves covered with a plastic bag in the sunlight.
27. As a result of low temperature, water returns back into water vapor.
28. Clouds consist of tiny water droplets that have condensed out of air.
29. Hottest regions are regions in which the evaporation process is the greatest.
30. Water comes out from stomata to the air in the form of water vapor.
31. In the water cycle, the step that follows condensation process is runoff.
32. Transferring of energy in the water cycle causes increasing and decreasing of water level in some lakes.
33. Falling of hail in coolest regions is an example of evaporation process.

Question 4

Write the scientific term:

1. It is the method by which heat transfers within liquids and gases, where hot molecules rise upward, while colder molecules fall down.
2. It is the method by which heat of the Sun transfers from the space to Earth's atmosphere.
3. The main source of energy which affects the water cycle.
4. It is the process in which water falls on Earth in the form of rain, sleet, snow or hail.
5. They are the places of storing water on the Earth.

6. The force which causes moving down of water from higher places to lower places on the Earth.
7. It is a form of evaporation that takes place through the stomata which are found in plant leaves.
8. The cycle that involves the continuous movement of water from different water bodies to the atmosphere then falling back to the Earth in the form of rain, sleet or snow.
9. It is caused when air warmed by the solar radiation rises and then replaced by cooler air that flows from nearby areas.
10. It is the step-in which rainwater falling on the Earth's surface is collected in different water bodies.
11. It is the main source which is responsible for warming of air and forming wind.
12. Large areas of land which are formed due to the effect of dry air.
13. It is the step-in which water flows along the Earth's surface into the river and then into the ocean or sea.

Question 5

Complete the following sentences:

1. Formation of fog is due to the……………of water vapor on a field in early morning.
2. The global wind system of the Earth consists of............. that blow in a constant ……….over long periods of time.
3. The direction of wind is determined by the amount of........... received by the Earth and…………… of the Earth.
4. The water starts to move or change its way of movement when a……………. affects it.
5. Flamingos migrate to the large Salt Lake in Turkey when the weather becomes, and they are feed on....... which are found in this lake.
6. The movement of water through different water reservoirs on the Earth is called the.........

7. The force which cause moving down of water from the top of a mountain is called………..

8. Clouds are made up of millions of tiny............droplets.

9. Transpiration is a form of…………...process, while condensation takes place by the decrease in the…………...energy.

10. Water vapor comes out from plant leaves through the……

11. When………….. in air hits a cold glass of juice, it will condense.

12. Water vapor condenses in the sky to form............

13. When warm air is cooled, it will move..............., while cold air moves ……….. when it is warmed.

14. Dry air causes the formation of large areas of............ around the Earth's surface

15. The three main processes which are responsible for movement of water through the water reservoirs on the Earth are evaporation, …………….. and …………

16. Heat can transfer through the Earth's atmosphere due to the effect of currents.

17. The difference in the .... and …………. in water of oceans and atmosphere occurs due to the unequal heating of land and oceans.

18. Fresh water changes into water vapor when it............ thermal energy, while fresh water changes into............. when it loses thermal energy.

19. The weather of the area faraway from the equator is....... because the sun rays fall............... the Earth's surface at this area.

20. Cold water has more.............. than warm water, so it moves under the warm water.

21. The Sun produces the energy which causes the movement of………..... currents that produces ocean currents and ....

22. Due to convection currents, hot air moves …………. cold air.

23. The amount of...........energy that reaches the Earth affects the rate of evaporation process in the water cycle.

Question 6

a) Look at the following figure, then choose the correct answer :

1. This picture shows the..........(Complete).

2. Choose the correct answer :

1. The rain falling on the mountain is a form of

a. cloud. b. precipitation.

c. evaporation. d. condensation.

2. The rain on the mountain runs into the.........and goes to the ocean.

a. Sun b. river c. ocean d. groundwater

3.When the Sun heats up the water in the ocean, it will..........

a. run off. b. condense. c. precipitate. d. evaporate.

b) Look at the opposite figure, then complete the following sentences :

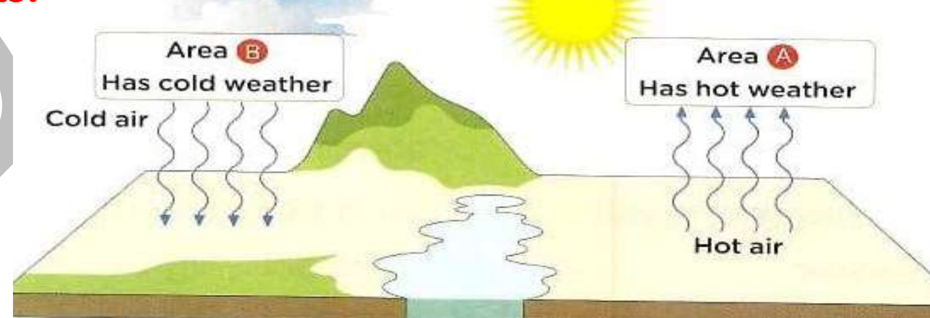
1. Areas.......and ……….are considered as hottest areas.

2.Areas...........and…… are considered as moderate areas.

3.Areas...........and…… are considered as coolest areas.



c) Look at the following figure, then complete the following sentences using the words between brackets:



(more-solar radiation-loses-less)

1. Air in area (A) moves upward, because it has……….density.

2. Air in area (A) becomes hot by the effect of.........

3.Air in area (B) moves downward, because it has......... density.

4. When air in area (A) moves to area (B), it........... thermal energy, so it will fall down near the Earth's surface.

Question 8

Give reasons for:

1.Drying up of the large salt lake in Turkey in summer season.

Due to the increase in the evaporation of the lake water.

2.Formation of fog in the early morning

Due to condensation of water vapor that is found in the air.

3.Changing of water from one state to another.

Due to gaining or losing of thermal energy.

4.Moving down of glaciers from the top of a mountain to its foot.

Due to the effect of gravity on glaciers.

5.Changing of some amount of water in water bodies into water vapor.

Due to evaporation process, as a result of gaining of thermal energy.

6.About 10% of water vapor in air comes from plants.

Due to transpiration process which happens by plants.

7.Formation of clouds in the sky.

Due to condensation of water vapor into water droplets that attach to particles of dust or smoke in the air.

8.Hot air moves upward above cold air.

Due to the effect of convection, where hot air has less density, so it rises upward, while cold air has more density, so it falls down.

9.The weather in the area near the equator is hot.

Because the sun rays fall perpendicular on Earth's surface giving high effect of heat.

10.The effect of heat is low in the area at the north and south of the equator.

Because the sun rays fall semi-inclined on Earth's surface of these areas, so the weather is warm.

11.On adding warm water to cold water without shaking, the warm water stay above cold water without mixing.

Due to the effect of convection, as warm water has less density than cold water, so warm water will stay above cold water.

12.The formation of wind is determined by the amount of solar radiation received by the Earth.

Because warm air rises upward when it is heated by solar radiation and it is replaced by cooler air that flows from nearby areas.

Question 9

What happen if:

1.To the level of water in a lake when the rate of evaporation increases.

The level of water will decrease.

2.To the snow when sunlight falls on it.

The snow will melt and change into liquid water.

3.If water of seas and oceans gains big amount of thermal energy.

Water of seas and oceans changes into water vapor in air.

4.If you cover some leaves in a plant with a plastic bag then put this plant in the direct sunlight for awhile.

Water droplets will form inside the bag.

5.If moist air touches a cold bottle of water.

Water vapor which is found in air condenses on the surface of the bottle.

6.If water vapor in air condenses in the sky.

Clouds are formed in the sky.

7.If the water droplets in the clouds become very heavy.

Water droplets fall in the form of rain.

8.To the weather if the sun rays fall very inclined on an area.

The weather of this area becomes very cold.

9.To the density of air if the cold air is warmed by the effect of solar energy.

The density of the air will decrease (becomes low).

10.To the air temperature if there is no wind on Earth.

The regions around the equator become extremely hot and the poles will completely freeze.

11.To the movement of air when solar radiation heats up the air in an area.

The air will move upward in this area.

Answers

Question 1 Choose:

1) b	2) b	3) c	4) c	5) d	6) b	7) d	8) a	9) b	10) c
11) c	12) b	13) b	14) d	15) c	16) b	17) d	18) c	19) a	20) c
21) a	22) d	23) d	24) c	25) d	26) c	27) a	28) d	29) b	30) c
31) c	32) b	33) a	34) b	35) b	36) c	37) c	38) a	39) d	40) b

Question 2 Choose from (A) what suits it in (B):

1. **1. b** **2. d** **3. a** **4.e**

2. **1. c** **2. a** **3. d**

Question 3 Put (✓) or (X)

1.X	6.X	11.X	16.✓	21. ✓	26. X	31. X
2.✓	7.✓	12.✓	17.✓	22. X	27. ✓	32. ✓
3.✓	8.✓	13.✓	18.X	23. ✓	28. ✓	33. X
4.✓	9.X	14.✓	19.X	24. X	29. ✓	
5.X	10.✓	15.X	20.✓	25. ✓	30. ✓	

Question 4

Write the scientific term:

1.Convection
2.Radiation
3.The sun
4.Precipitation process
5.Water reservoir
6.Gravity
7.Transpiration process
8.The water cycles
9.Wind
10. Collection
11. The sun
12. Deserts
13. Runoff

Question 5

Complete the following sentences:

1. Condensation
2. Wind – direction
3. Solar radiation– rotation
4. Force
5. Warm - algae
6. Water cycle
7. Gravity
8. Water
9. Evaporation – thermal
10. Stomata
11. Water vapor
12. Clouds
13. Downward – upward
14. Desert
15. Condensation - precipitation
16. Convection
17. Temperature – densities
18. Gain – ice
19. Very cold – very inclined
20. Density
21. Convection – winds
22. Above
23. Solar

Question 6

Correct the underlined words:

1. Running	**4.** Atmosphere	**7.** Lake	**10.** Weathering
2. 71	**5.** Hydrosphere	**8.** Gas	**11.** Biosphere
3. Four	**6.** Atmosphere	**9.** Blue	

Question 7

Study the following figure then complete the sentences below:

a)	**1.** Water cycle	**2.** 1. b	2. b	3. d
b)	1. C- D	2.B- E	3. A-F	
c)	1. less	2. Solar energy	3. More	4. Loses